MODERN PACKAGING

March 1945



BUSINESS & FINANC

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Rely on National . . . with its expert knowledge of the mechanical and chemical requirements of each adhesive application . . . to provide trouble-free operation at high speeds.

What are the clean machining qualities of an adhesive? Many. Very many. When rapidly rotating rollers have a churning action, the adhesive must be non-foaming. When exposed to air, it must not skin over . . . must not crystallize so rapidly that it builds up on glue pots, brushes, wheels . . . must not corrode metal or harden rubber parts . . . must not break down under continuous agitation or coagulate in the machine or during normal periods of storage.

In all transfer and stencil applications of glue, the adhesive must be non-stringy so as to break short and clean; and must be non-creeping to adhere strictly to the stencil pattern. At high speeds, the adhesive must neither throw from the applicator nor spatter the work in any way to cause labels or cartons to 'lock' . . . and interfere with subsequent pick-up, folding and filling operations of labeling, envelope making, bag sealing, carton filling, etc.

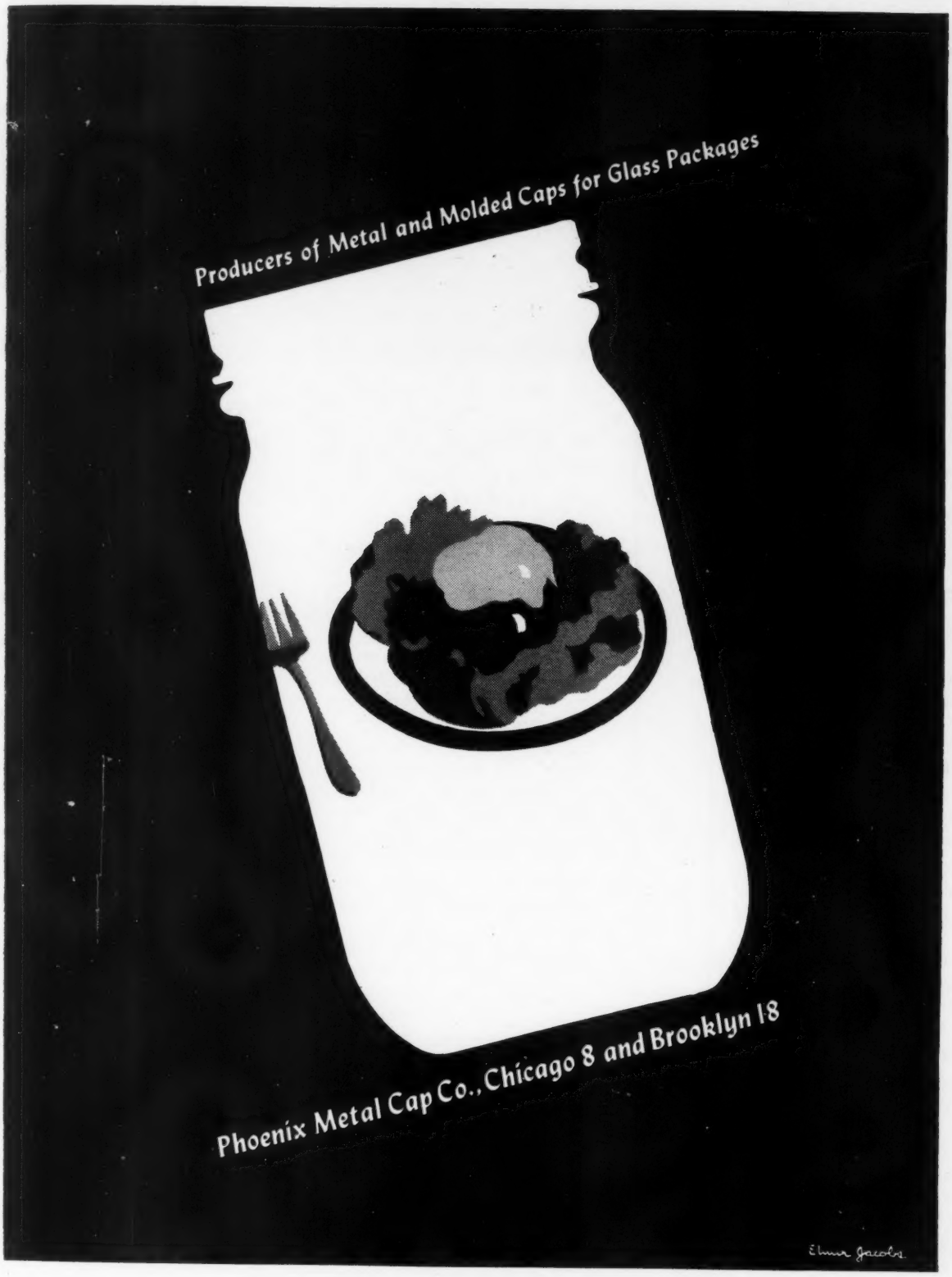
You can safely rely on National . . . with its practical background of adhesive applications . . . to provide the clean machining qualities needed to handle your specific job *efficiently* at its highest level of production.

Offices: 270 Madison Avenue, New York 16; 3641 So. Washtenaw Avenue, Chicago 32; 739 Battery Street, San Francisco 11, and other principal cities.

National ADHESIVES

EVERY TYPE OF ADHESIVE FOR EVERY TYPE OF ADHESION

Deck


Producers of Metal and Molded Caps for Glass Packages
Phoenix Metal Cap Co., Chicago 8 and Brooklyn 18
Elmer Jacobs

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THE COVER

Every spring, Nature goes into annual production on the greatest packaging job of all. What man-made container can compare with the eye-appeal of a ripe red apple, the interior partitionings of a lemon, the cradling of an embryo chick in an egg, the delicate colorings and iridescence of a sea shell?

On this month's cover, Peter Piening, the artist, symbolizes a story of packaging as old as the universe —a story that forever transcends laboratory synthetics and machine production.

All editorial contents bearing on military subjects have been approved for publication by the Armed Services.

MODERN PACKAGING is regularly indexed in the *Industrial Arts Index.*

MODERN PACKAGING

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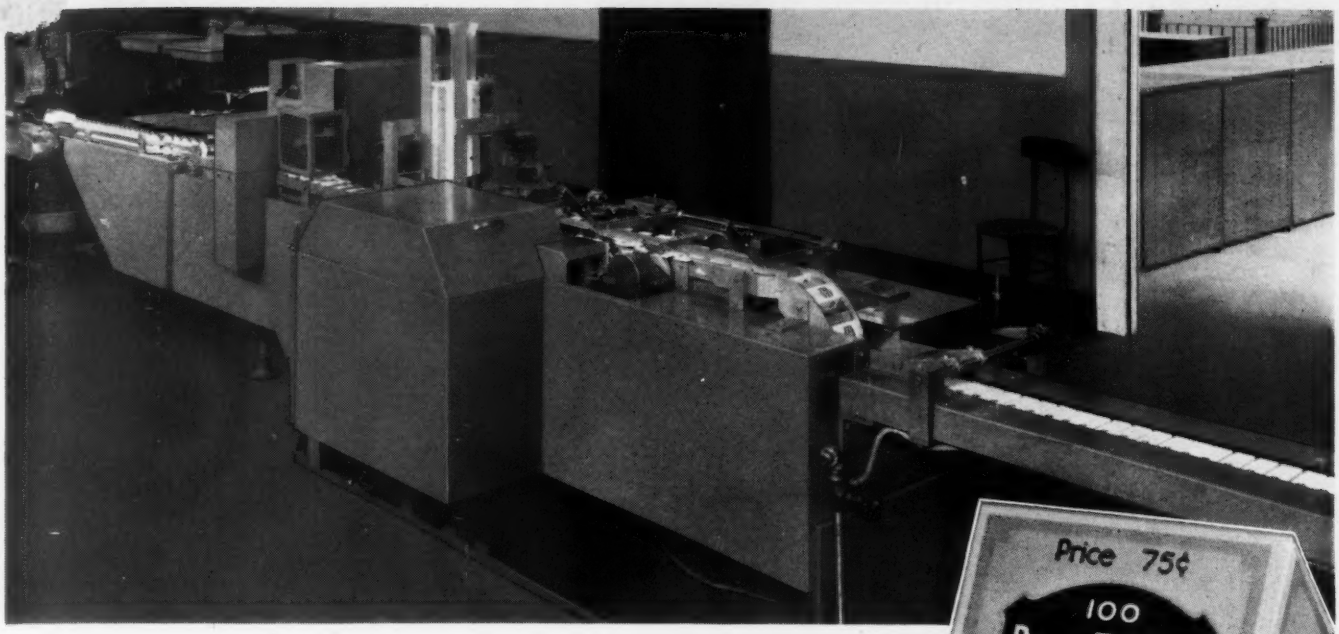
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Bayer's 9th Redington

It Cartons the 100-Tablet Bottles at 125 Cartons a Minute . . .

SPEED, ruggedness, reliability—they all add up to *unusual efficiency* in Redington packaging machinery.

That's why the Bayer Company choose its *ninth* and latest Redington, constructed under a high priority, for cartoning the 100-tablet-bottle-plus-a-circular at the Trenton, New Jersey, plant. Built to Redington's high engineering standards, this smooth, quiet machine cartons 125 bottles a minute.

Bottles are brought into the machine standing upright on the intake conveyor belt. They are placed in a horizontal position in the conveyor pockets. The Redington feeds a 9" x 4 1/8" *circular* from circular magazine, folds it *twice parallel* to the long dimension, and places it over the top of the bottle from side to side. Carton is fed from magazine, expanded, and bottle and circular inserted.

Typical of the care exercised by Bayer in *even little details is* its insistence on a trim looking carton. A special mechanism on the machine folds and glues the end flaps *squarely and neatly*.

Such high engineering standards explain why so many experts say, *"If it's packaging, try Redington first."*



Redington machines have a special mechanism for squaring the glued flaps at the carton's corners.

F. B. REDINGTON CO., (Est. 1897) 110-112 So. Sangamon St., Chicago 7, Ill.

REDINGTON

PACKAGING MACHINES

FOR CARTONING · WRAPPING · SPECIAL PACKAGING

A NEW PACKAGING DIVISION BORN OF U. S. E. WAR PACKAGING EXPERIENCE



With Field Men who *know* Packaging

The field representative of U.S.E.'s new Kellogg Container Division is worthy of the title "Packaging Specialist" which appears on his card.

He is a man who knows packaging from beginning to end and is qualified to sit down with you and help to solve your container problems.

Back of him, of course, are the full resources and engineering knowledge of this newest division in the U. S. E. family.

Through him, you can secure the full benefits of war-born experience in water-moisture-vapor-proof materials as used in heat-sealable containers, bags, boxes and envelopes, in transparent and translucent materials and plastics. P-7T

UNITED STATES ENVELOPE COMPANY
14 Divisions from Coast to Coast

U·S·E PROTECTIVE PACKAGING

K KELLOGG CONTAINER DIVISION SPRINGFIELD MASS.



With Geon it's the *combination* of properties that counts

THE processor who coated this lightweight fabric with GEON really "made something of it". For with the application of one of the GEON polyvinyl raw materials he created a fabric possessing many unusual and desirable properties in a *combination* that was *planned* to meet specific needs.

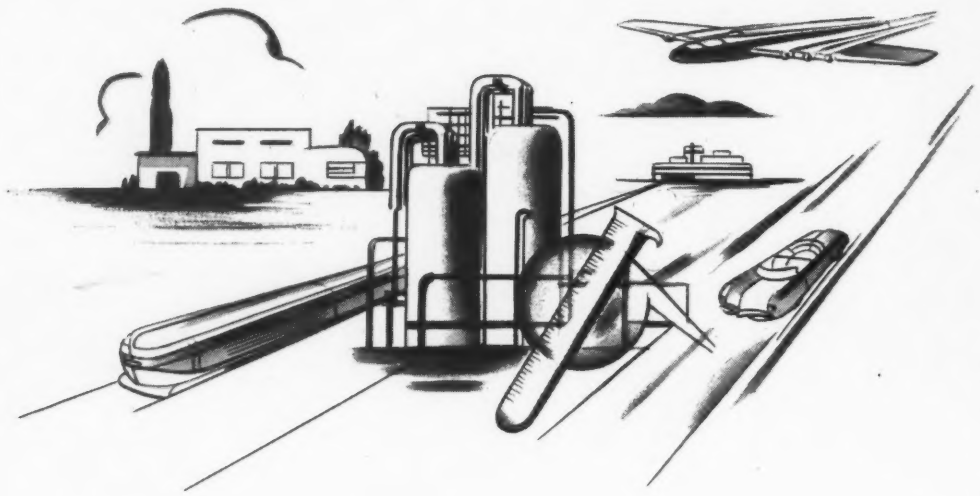
This same type of planning is possible for engineers and designers in the packaging industry just as it is in textiles, shoes, upholstery and many others. For more than 30 distinct properties may be had in an almost unlimited number of *combinations.* For example, products made of GEON may be made to resist water, heat, cold, aging, wear, abrasion, sunlight, chemicals and many other destructive factors. They can be made tasteless, odorless, non-toxic. They may be brilliantly—or softly—colored.

This coated fabric is just one example of what can be done with the GEONS. For in addition to serving as a coating for fabric or paper, the GEONS can be calendered or cast into sheet or film. They can be extruded, pressure or injection molded. Products made of GEON may be flexible or rigid. Doesn't all this suggest some new—or old—product that *you* want to make out of GEON?

Right now all the GEONS are subject to allocation by the War Production Board. Limited quantities can be had for experiment. For more complete information write Department LL-3, Chemical Division, The B. F. Goodrich Company, 324 Rose Building, Cleveland 15, Ohio.

Geon
Polyvinyl Materials

CHEMICAL DIVISION
The B. F. Goodrich Company
324 ROSE BUILDING • CLEVELAND 15, OHIO



THINGS TO COME

Of the many things that have been promised for postwar, one is certain . . . better packaging. You'd be surprised how many manufacturers are planning right now to improve their packages. They know that the design and appearance of the package will play a major role in postwar selling.

If your product goes into glass, the quality of your containers becomes an increasingly important factor. You may find it helpful to consult with us now on your plans for postwar packaging. Since 1889 we have been making glass containers that are known for their outstanding excellence.

CARR-LOWREY GLASS CO.

Factory and Main Office: Baltimore, Md. *New York Office:* 500 Fifth Ave.
Chicago Office: 1502 Merchandise Mart

while our hands are war-busy...





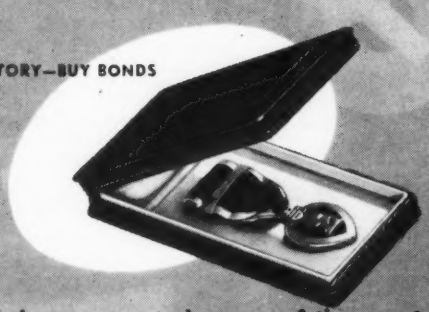
let's put our heads together

Today's goods sell practically sight unseen. But tomorrow's goods will sell *on sight!* That's something to think about now . . . packaging to capture the eyes . . . to swell the sales.

While our hands are war-busy, let's put our heads together. Let's plan your boxes now and get them ready for immediate production when Victory is won. Arrow box concepts are not confined to metal, plastics, wood, glass or cardboard, for we're uniquely equipped to manufacture in any or all of these materials. And with just as great a range of coverings.

Steal a jump on tomorrow's boxes—see Arrow today!

SPEED VICTORY—BUY BONDS



Arrow

BOXES AND DISPLAYS

WE'RE proud that we are today one of the country's largest suppliers of the boxes which hold the medals for the heroes in our Armed Forces.

ARROW MANUFACTURING COMPANY, INC., FIFTEENTH AND HUDSON STREETS, HOBOKEN, NEW JERSEY



SYMBOLS OF AMF ABILITY

Cigarette Making Machines

Cigarette Packers

Cigarette Tobacco Leaf Stemmers

Tobacco Weighing & Packing Machines

Necktie Slip Stitching Machines

Ornamental Stitching Machines

Wahlstrom Drill Chucks & Tapping Attachments

Bread Wrapping Machines

Bakery Ovens

Vertical Mixers

Bread Pan Greasers

Pretzel Tying Machines

"Amaloy" Lead Alloy

TO KNOW – TO USE THIS SYMBOL is the trademark of American Machine & Foundry Company, designers and builders of fine machinery. It is the trademark of a company whose reputation for dependable, up-to-date machinery has been established by 45 years of continuous service. To the Baking Industry, the Glen "340" Mixer, the Standard Bread Wrapper, the End Labeler, and Thermo-Radiant Ovens are constant proof of AMF's ability to create machines of good quality and efficiency. The Tobacco Industry knows AMF for the long list of specialized machines used throughout that industry. The design and building of machinery by AMF involves the whole of its closely coordinated organization of research men working in fully-equipped laboratories, of skilled engineers, of precision construction in AMF's own large factories. It involves thorough, intensive laboratory and field tests. It means that *only machines of tested ability and quality* are permitted to wear the symbol — AMF.

The same thoughtful analysis, the same engineering skill and fine standards of construction which won AMF its reputation in the Baking and Tobacco Industries is ready to be applied to *your* packaging machinery. Use AMF when you need such machinery. Use its accumulated knowledge and resources to work on the machines that will best solve your specialized packaging problem.

AMF INVITES CONSULTATION ON PACKAGING MACHINERY AND EQUIPMENT PROBLEMS

AMERICAN MACHINE & FOUNDRY CO. 511 FIFTH AVENUE NEW YORK 17, N.Y.

FLORAL
PRINTS



NASHUA GUMMED AND COATED PAPER COMPANY
NASHUA, NEW HAMPSHIRE

CREATORS · CHEMISTS · CRAFTSMEN
NASHUA
MAKES PAPER MAKE MONEY FOR YOU



Does your quality control end at your shipping room door?

YOU take a natural pride in the quality of your products... in the careful supervision that begins with the flow of raw materials, that follows through each step of manufacture.

You take every precaution to safeguard the purity and quality of the products you put into your packages . . . but how about the package itself? Are you sure that your customers are receiving the same quality you pack?

Your fine products deserve an Anchor Package . . . to extend your quality control through the hazards of transportation, at the point of sale and finally, into your customers' homes.

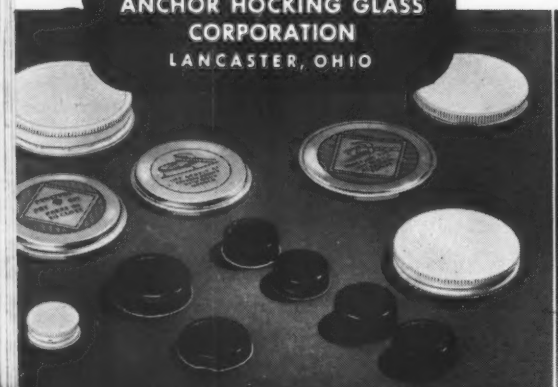
There is a combination of light, strong Anchorglass containers and perfectly matched Anchor Caps which will provide thorough, dependable protection for all your fine products after they leave your hands . . . a combination that will create definite impulse sales and good will for you.

May we add our broad experience to yours in order to find the proper combination?

"Meet Corliss Archer" every Thursday Evening, entire Coast-to-Coast Network CBS.

Anchor
CONTAINERS and CAPS

PRODUCTS OF
ANCHOR HOCKING GLASS CORPORATION
LANCASTER, OHIO





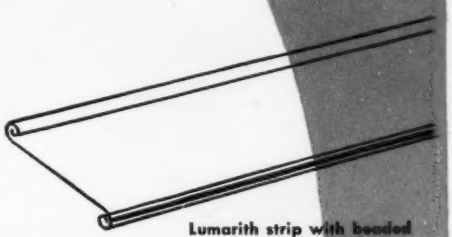


1. LESS WEIGHT **2. INCREASED RIGIDITY**

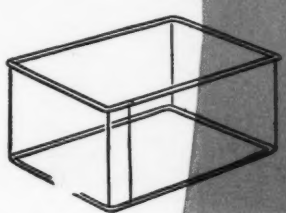
3. LOWER COST **4. FASTER PRODUCTION**

For a powder puff or a blanket this basically different method of forming transparent Lumarith packages will appeal to the production man. Continuous strips of Lumarith C.A. (cellulose acetate) film are fed into the beader which crimps a bead on one or both edges. The beaded strips are cut into proper lengths, run through a creaser, formed into the desired wall shapes, and then cemented. Bottoms may be sheets of Lumarith, cardboard or other material, cut to make a tight tension fit supported by the lower bead. Tops are transparent Lumarith.

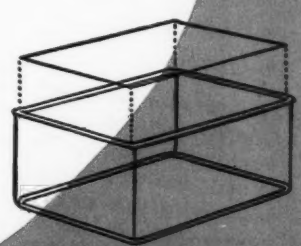
The beaded edge has several important advantages: serves as anchoring support for top and bottom, increases rigidity, permitting use of lighter stock, produces a smooth non-snagging edge. Lumarith films—tough, easy to form and draw, transparent, non-aging, greaseproof, dustproof, waterproof—are ideal for this method. Our technical staff will be glad to give you more information. Celanese Plastics Corporation, *a division of Celanese Corporation of America*, 180 Madison Avenue, New York 16, N. Y.



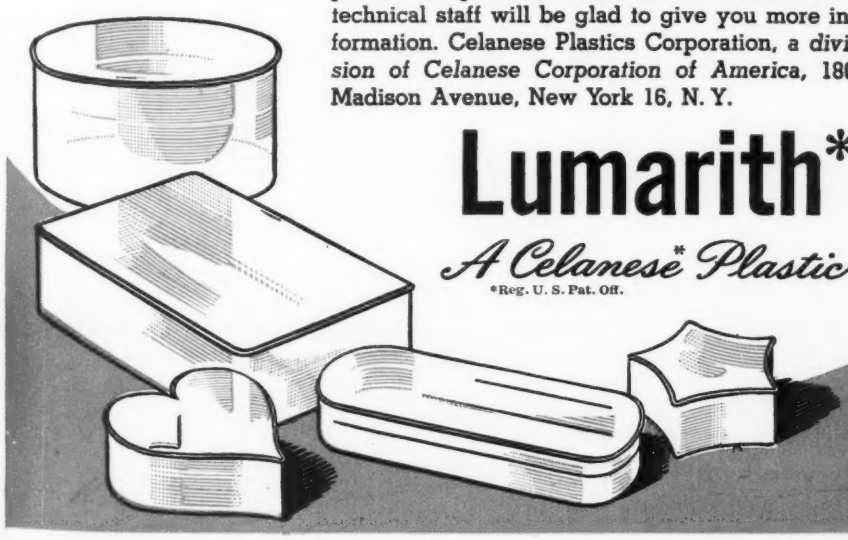
Lumarith strip with beaded edges—beads can be "one in, one out" or both in.



Creased and shaped, ready for cementing.



Completed wall ready for insertion of bottom. Top is formed same way—usually only one edge being beaded.



Lumarith*

A Celanese Plastic*

*Reg. U. S. Pat. Off.

Maybe it isn't a

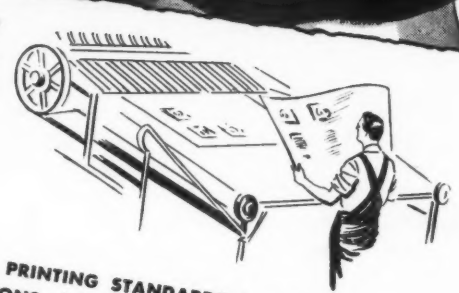


3



PROVED AND IMPROVED for six straight years. Coated Lithwite is the original paperboard made and coated in one continuous, high-speed operation. And its margin of quality leadership has been lengthened by constant refinements. In addition to its finer printing qualities, Coated Lithwite folds and scores without flaking or shattering, takes a tight seal —means fewer jam-ups in filling machines.

4

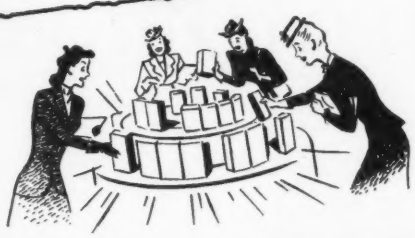


FINE PRINTING STANDARDS FOR MASS-PRODUCED CARTONS. Add Gardner-Richardson's fine press work, exact methods, skilled plate-making, careful make-ready and thorough checking to the natural advantages of Coated Lithwite— and you can understand why many of America's leading carton users specify G-R Coated Lithwite cartons.

a mistake... IT GIVES ME AN IDEA

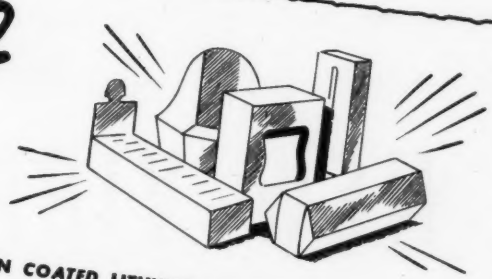
AND IT'S AN IDEA EVERY CARTON USER WILL WANT TO GRAB WHO'S LOOKING FOR EXTRA SALES, IN TOMORROW'S OPEN DISPLAYS AND SELF-SERVE STORES

1



FOR COLOR BRILLIANCE has a lot to do with making a package stand out, catch eyes . . . say, "Take me home." Pick up or impulse sales already add up to over 50% of the volume in thousands of stores. And this help-yourself, reach-for-it trend is headed UP. Tomorrow, your folding carton will need the extra attention it can get—with Coated Lithwite.

2



ON COATED LITHWITE CARTONS, colors show up more brilliantly. For the surface of this revolutionary, one-process coated board is unusually white. Uniform. Hard. Smooth. Free from chalkiness. It forms a perfect base for plates and inks. It reproduces product illustrations with a sharp realism that gives a buying urge.

DON'T HESITATE TO CHANGE YOUR PACKAGE. Your competitor won't be afraid to change his. He knows how important a smart, modern, *attract*-ive folding carton will be in tomorrow's open displays and self-serve shelves. Put your problem up to Gardner-Richardson's engineers, designers, merchandising experts, now. While no new orders for *Coated* Lithwite can be filled at this time, G-R skill, know-how and ingenuity is ready to tackle your folding carton problem, come up with an answer that will mean better display, better sales for you, tomorrow. Write, today. Tell us where you'd like help.

The GARDNER-RICHARDSON Co.

Manufacturers of Folding Cartons and Boxboard

MIDDLETOWN, OHIO

Sales Representatives in Principal Cities: PHILADELPHIA • CLEVELAND • CHICAGO • ST. LOUIS • NEW YORK • BOSTON • PITTSBURGH • DETROIT

Shield-pak

CORRUGATED INTERIORS
FOR SET-UP AND FOLDING CARTONS

IN A RANGE OF

NEW VIBRANT COLORS

IS

OUR POST-WAR PLANNING

AND SHOULD BE IN

YOUR PLANNING

WRITE NOW FOR COMPLETE DETAILS



THE AJAX BOX COMPANY
Manufacturers of CORRUGATED PAPER PRODUCTS
2210 SO. UNION AVE. — CHICAGO 16, ILL.



REPORTING ON THE

ALUMINUM SEAL SITUATION

A FEW MONTHS AGO it looked as though Alseco *Aluminum* Seals could be supplied to almost anyone early in 1945. But the picture has changed and here's how it looks now.

IN FEW WORDS, NOT TOO GOOD. Manpower and material are putting a two-way squeeze on our production just as they probably are on yours.

YOU MIGHT WONDER why *material* is a problem for us in view of the fact that aluminum is not so critical as it was a while back.

ALUMINUM INGOT *IS* PLENTIFUL, but aluminum sheet for making seals is not always available. Sheet mills, kept busy on a top priority war job, are rolling airplane skin most of the time.

WAR PRODUCTION plays an even more important part in the Alseco picture. Right now practically all of our capacity is required on aluminum seals for penicillin, serums, and intravenous solutions, and other supplies for the armed forces.

THIS PICTURE MAY CHANGE anytime, however. If you would like us to let you know when more Alseco *Aluminum* Seals can be supplied for civilian applications, we shall be only too glad to do so.

IN THE MEANTIME, certain Alseco Seals can be made of materials *other* than aluminum. We shall be happy to tell you what we can do in that line.

ALSECO SEALS AND SEALING MACHINES

TAILOR-MADE OF ALCOA ALUMINUM

ALUMINUM SEAL COMPANY · 1345 THIRD AVENUE · NEW KENSINGTON, PENNSYLVANIA

DIVISION OF ALUMINUM COMPANY OF AMERICA

DETROIT PUBLIC LIBRARY

It pays to be a Bemis Customer

BEMIS BAGS



BEMIS BRO. BAG CO.
Saint Louis
Better Bags Since 1858

The full resources of materials, manufacturing and fine printing of 14 textile bag plants and 6 heavy duty paper bag plants—strategically located from coast to coast—are behind every Bemis contract.



East Pepperell, Mass.

KIDDER POINTERS

No. 6. **Observations of trends and indications in packaging . . . noted by the manufacturers of Kidder "3 Point" Presses, Kidder Press Company, Inc., Dover, N. H.**

Nashua Gummed & Coated Paper Co. has been developing widely-accepted substitutes for cellophane for protective and attractive wrappings for customer merchandise. From underwear to razor blades, paper plates to face powder, substitutes have proved their value. If you're interested, write Specialty Printing Division, NG&C Paper Co., Nashua, N. H.

Development of packaging for air transport looms as subject to engage imagination of designers, packagers and traffic men for postwar.

Keen competition—value vs. costs . . . these old economic measuring sticks call for increasing attention to design and packaging. Your trade papers are listing an increasing number of independent as well as company design research and packaging people. They're worth contacting!

Packagers will find much of interest in "Post-War Survey of Food Industry" with new products, substitute packagings, dehydrated foods, new forms of merchandising bakery products etc.—discussed by W. Clement Moore (Philadelphia, Pa.) in PACKAGING PARADE (Oct. '44, Pg. 24.)

Aspirin-size tea tablets, usable for hot or cold tea, are a wartime beverage novelty. Packaged by Burroughs-Wellcome & Co. Inc.

Most important factors governing application of printing inks to molded or extruded plastics are physical characteristics of the plastic surface and mechanical-chemical resistance to an ink film. J. J. Micik, Control Lab., International Printing Ink, Brooklyn, N. Y., suggests study by joint committee of plastic and ink industries.

Moistureproof plastic packaging film, manufactured by Firestone Tire & Rubber Co., Akron, Ohio, will be distributed to companies for postwar packaging. Makers foresee its use in packaging foods, candies, medical supplies, dry goods, machines and machine parts . . . adding visibility and self-servicing features to protection.

"The Coming Battle of the Packages" (Art Brown, NATION'S BUSINESS, Nov. '44) has a future trends tell-all story to interest every merchandiser, packager, printer, designer — consumer!

Non-erasable safety paper to foil frauds has been invented. Each sheet has a two-ply coating, the top one containing coloring matter, the bottom one white.

A synthetic-resin base cement, developed by American Wood Type Manufacturing Company of New York, is used to adhere metal to metal, also on paper, leather, wood, viscose and acetate sheets . . . transparent when dry.

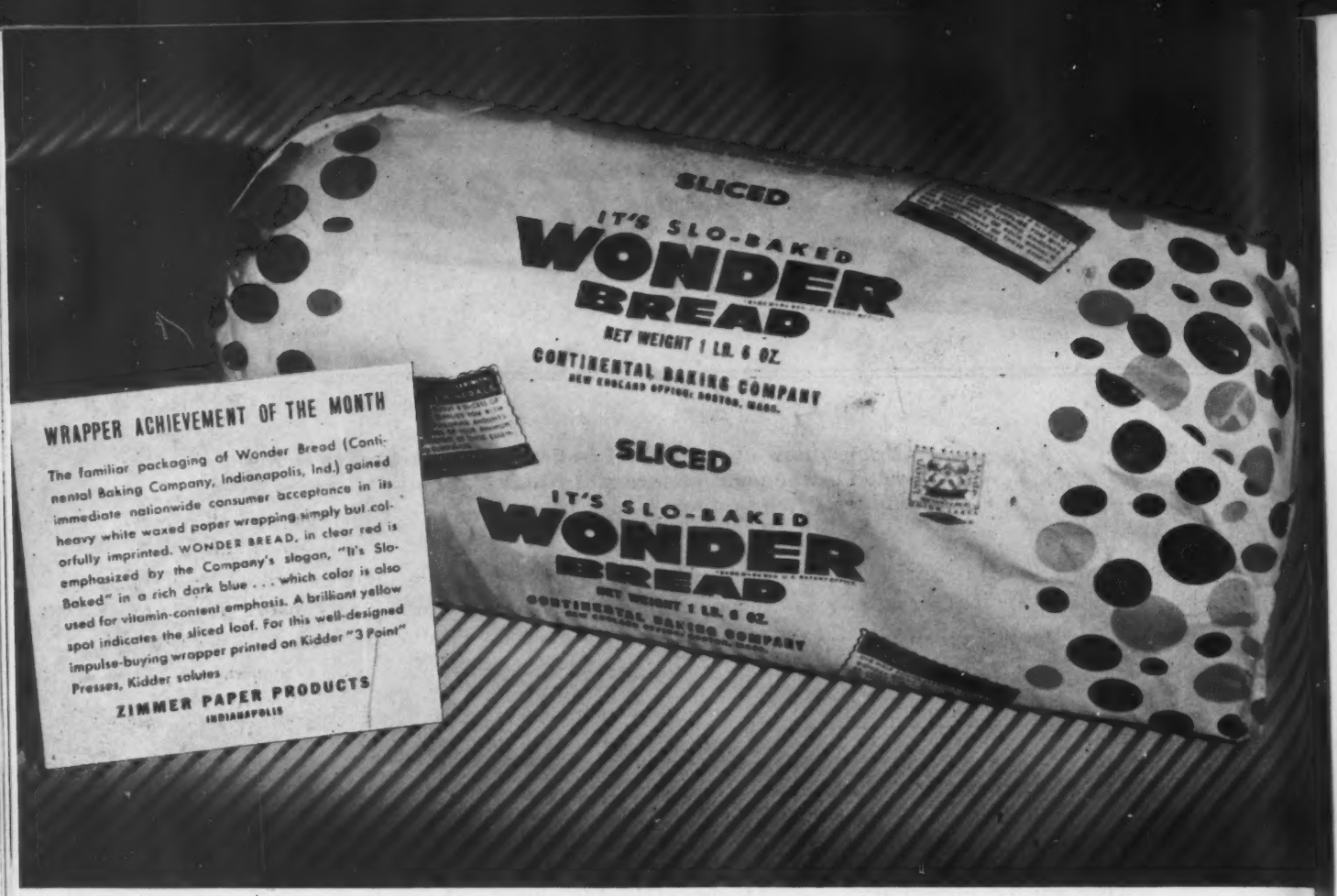
Engineers and scientists have joined forces in battling fungus and mold; necessity has produced new types of greaseproof papers, laminated foils, waterproof film and fibre-board.

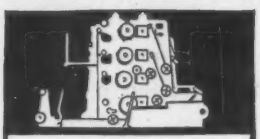
An eye-catching carton for "Party Bits" cookies (U. S. Cookies Co. Inc., Brooklyn, N. Y.) now shows sepia-tinted illustration of contents. Color scheme completed in aqua and process red ink.

New quick-frozen fish dinner (point free) in waxed individual carton is self-locking, moisture-proofed, colored in green, white and blue for Hamilton's Foods Inc., Chicago . . . with recipes on carton and on pamphlets next to specially treated wax paper containing the fish.

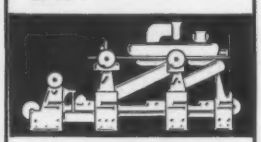
Pre-packaging of fresh vegetables and meats in consumer sizes, ready for customer pick-up-and-pay will revolutionize the corner grocery, says George A. Mohlman, President, Package Machinery Co., Springfield, Mass.

KIDDER PRESS COMPANY, INC., ***Printing Machinery,*** **Dover, N. H.**

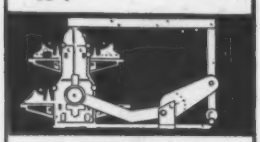




Multi-Color Letter Presses
for waxed paper, box wrappers, etc., rewound or sheet-delivered — up to 72″.



Multi-Color Unitype Gravure Presses
for cellophane, foil, pliofilm, etc. — rewound or sheet-delivered — up to 36″.



"Aniliner" Multi-Color Presses
for decorative papers, cellophane, glassine, etc. —up to 65″.



Slitters & Rewinders
for paper mill finishing rooms and small-roll, high-speed slitting — up to 72″.

NEW KIDDER PRESSES SOON TO BE RELEASED

While Kidder manufacturing facilities are still engaged in war work, Kidder planning has reached the stage where customers can be told more about the new developments in the line of "3 Point" Presses for multi-color wrapper printing.

In addition to the many letter presses now operating in scores of American and Canadian paper-converting plants (for example, 95% of all waxed bread wrappers are printed on "3 Point" Presses), Kidder plans the following extensions of its line:

Aniline printing. Improved models of the Kidder "Aniliner" introduced just before the war for printing on decorative papers, cellophane, glassine, etc. . . . including the "Celloprinter", a narrow four-color aniline-type press for cellophane.

Gravure printing. A new line of "Unitype" gravure presses for cellophane, foil, pliofilm, etc., rewound or sheet-delivered. Individual units can be purchased from time to time as expanded capacity is required.

Slitting and rewinding. High-speed, small-roll slitting up to 72″ capacity.

Discussion with a Kidder engineer of how these new Kidder developments can be worked into your planning will involve no obligation.

KIDDER PRESS COMPANY, INC.

Printing Machinery, **DOVER, N. H.**

THREE POINT

KIDDER
Manufacturer of "3 Point" Presses —so-called because they fulfill the three major requirements for perfect printing.



CONTROL OVER THE PAPER

PROPER DISTRIBUTION OF INK

ACCURACY OF THE IMPRESSION



The Gopher
and the packaging problem

The American Gopher has energy to burn.

He can dig a tunnel two hundred yards long in two days flat . . . all by himself.

Imagine what he could do if he "teamed up" all gophers. Why in no time they could tunnel a network of subways that would make this nation one huge Swiss cheese.

But don't worry. Gophers are not interested. They won't lend each other a helping hand.

They're not like American humans who are always wondering how they can co-operate with the other fellow. As f'rinstance (and you'll pardon us) we like to do here at American Can Company. Here's what we mean:

A manufacturer's product isn't paying as well as it might. For one thing, he knows he has the wrong package. Does he burrow his nose in the ground?

He brings his problem to American Can Company and asks co-operation of our merchandising staff. It is given to him gladly. And without charge.

A canner is having trouble with his pack. If the difficulties are not remedied, serious financial reverses may be suffered. Does he dig a hole for himself? No. He calls in an American Can engineer. We help him locate his trouble.

A dietitian needs new menu slants. So she calls upon our Home Economics Kitchen. (In addition, as an aid to Home Economists, we distribute thousands of booklets on the subject of canned foods.)

And so, here at American Can, we don't play gopher. We co-operate with folks who believe we can help them. It's part of our business philosophy.

We're at your service.

CANCO

AMERICAN CAN COMPANY

230 Park Avenue New York 17, N. Y.

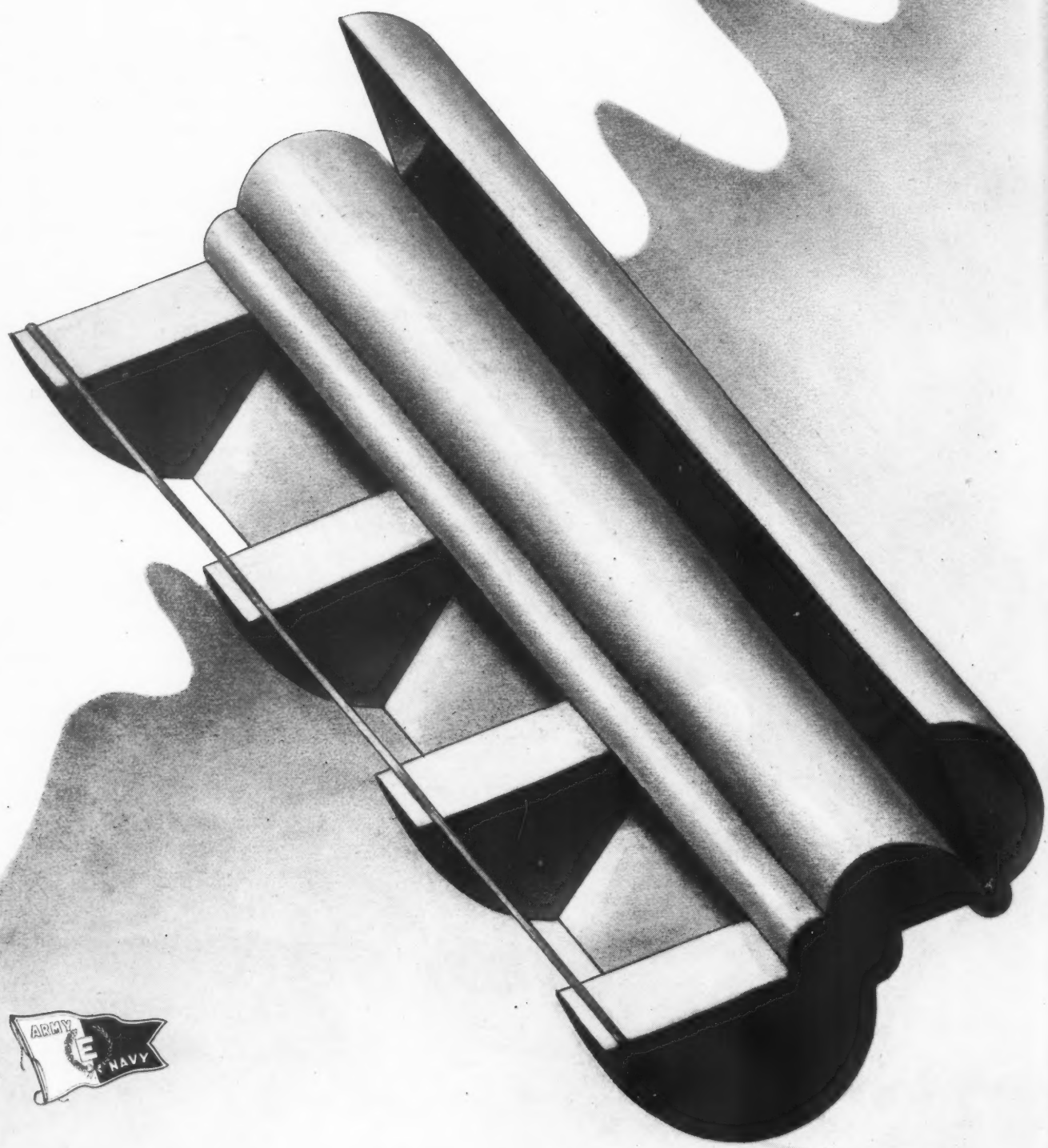
Post-War Trends in

Metal PRESENTATION BOXES

for the Jewelry and Pen and Pencil

trade will be as unusual as this abstract

ESTABLISHED 1876



ARMY E NAVY

F. H. NOBLE & COMPANY 559 West 59th Street Chicago 21, Illinois



Better bags for frozen foods, made with Alcoa Aluminum Foil

Reason it makes sense is this: aluminum foil will out-perform any other bag material in preventing moisture vapor transmission. That means an end to dehydration.

Being metal, aluminum foil can also provide a positive barrier to air. To gas. To liquid. To light. To odors. To grease.

Alcoa foil continues to give this protection at sub-zero temperatures of freezing and storage. Also, at high humidities. Aging does not affect it. Furthermore, it is tasteless, odorless, and non-toxic.

All these advantages explain why bag manufacturers are working with Alcoa Aluminum Foil. Tests are being made on foil bags of various constructions and on other types of frozen food packages for commercial packers and locker plants. They look most promising.

Would you like to make some tests yourself? Consult your package supplier or write ALUMINUM COMPANY OF AMERICA, 2129 Gulf Building, Pittsburgh 19, Penna.



Tests are now under way on these bags, made of Alcoa Aluminum Foil laminated to paper in a special construction developed by Rapinwax Paper Co., Chicago and Minneapolis.

ALCOA

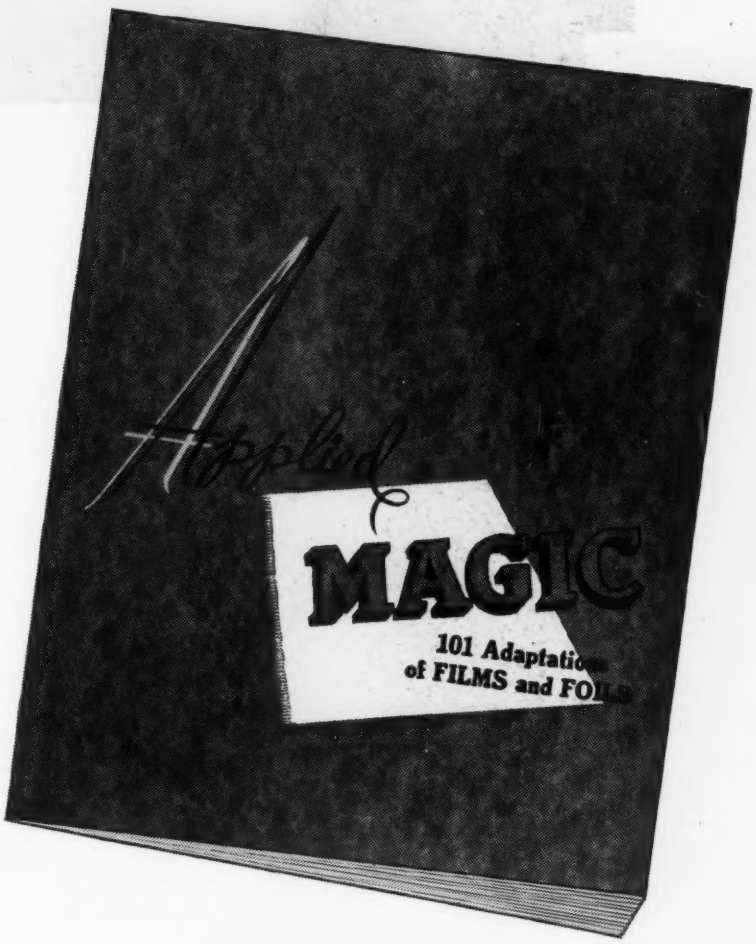
ALCOA ALUMINUM FOIL



Representatives: Bradner Smith and Company and Mac Sim Bar Paper Company, Chicago • H. B. Royce, Detroit
Gordon Murphy and Norman A. Buist, Los Angeles • A. E. Kellogg, St. Louis • Philip Rudolph & Sons, Inc., Philadelphia

FOR NEW PACKAGING IDEAS...

READ "Applied Magic"



You'll learn how Dobeckmun packaging service, and our research, testing, design and processing facilities have helped solve many food packaging problems. You'll find "Applied Magic" well worth your study.

It's full of illustrations and practical ideas for using films and foils to make more attractive, better-selling packages. You'll see many interesting examples of highly protective wrappings that guard sensitive products against extremes of climate or other severe conditions.

FOR THE MAN WHO'S THINKING AHEAD!

A limited supply of these booklets is available to executives. Just fill in and mail the attached coupon and your copy will be sent to you promptly, with no obligation.

CONVERTERS • PRINTERS • LAMINATORS OF FILMS AND FOIL

THE DOBECKMUN COMPANY

CLEVELAND 13, OHIO

WESTERN SALES HEADQUARTERS • SAN FRANCISCO 4, CALIF.

OFFICES IN NEW YORK • BOSTON • PHILADELPHIA • CHICAGO AND LOS ANGELES

REPRESENTATIVES EVERYWHERE

PLEASE SEND MY FREE COPY OF "APPLIED MAGIC"

Name .....

Title .....

(Attach to your letterhead and mail to The Dobeckmun Co., 3301 Monroe Ave., Cleveland 13, Ohio.)

M.P.



DID you ever stop to consider what your product's chances are *inside* the package . . . what opportunity it has to attract and sell the shopper . . . to deliver to her the original quality and full value that will bring her back for more?

WHAT ABOUT TRANSPARENCY?

Transparent packaging lets the product be its own salesman. It enables the shopper to *see for herself*. It lets eye appeal help the product cash in on impulse buying, the basis of a large portion of all consumer purchases. You get the powerful sales stimulus of full product visibility with *transparent* Du Pont Cellophane.

WHAT ABOUT PROTECTION?

This fundamental function of good packaging extends beyond protection from contamination and damage. It calls for the protection of freshness, flavor and all-round quality. You get the protection you need with *moistureproof* Du Pont Cellophane.

WHAT ABOUT COST?

Many merchandising authorities are stressing the need for lower postwar distribution costs. This calls for a *low cost* packaging material . . . and one that can be used most efficiently on automatic wrapping machines. You get true packaging economy with Du Pont Cellophane.

Du Pont research has helped make possible 20 price reductions in Du Pont Cellophane. It is constantly at work to find new ways to increase packaging efficiency and economy.

Right now, military demands must come first, limiting the supply of available Du Pont Cellophane for civilian packaging. Investigate its advantages today . . . plan for its use tomorrow. E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington 98, Delaware.

DuPont Cellophane

Shows what it Protects—at Low Cost

DU PONT
REG. U.S. PAT. OFF.

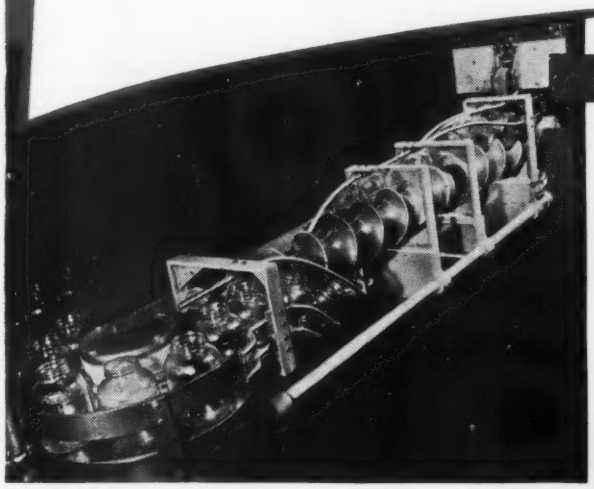
BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

Have You Figured What Duraglas Containers Can Do For You?

Remember marketing before the war? How hot the competition was? Look for it to be hotter after peace comes.

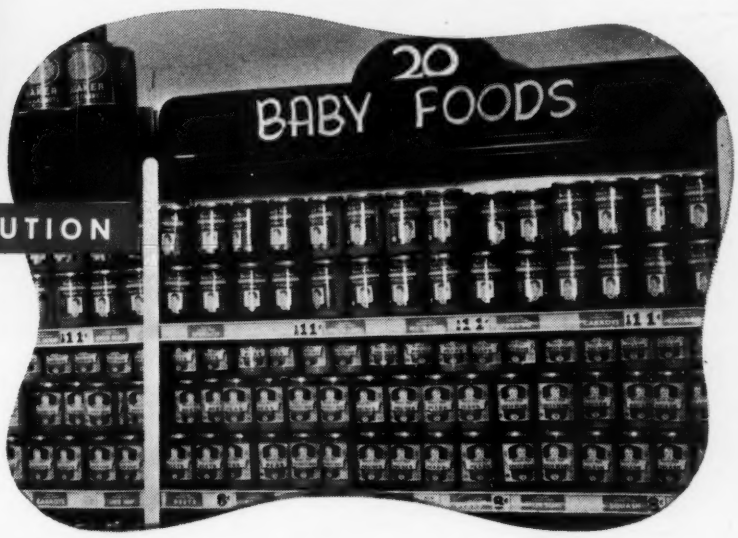
Then your brands will need the advantages of improved containers—Duraglas Containers —that preserve and protect AND let your products sell themselves by the appetizing display of their goodness.

Start now to figure all the ways that Duraglas Containers can give you a lift in tomorrow's tough markets.



A LIFT TO PRODUCTION

Simple gadget isn't it? Just a worm, some piping, and angle iron. But it solved a production line problem. Jars speed along, turn upside down, move right ahead and turn upright into the conveyor system. Remember, Owens-Illinois service begins with the production lines of those who use Duraglas Containers—the *modern* containers.



A LIFT TO DISTRIBUTION

The significant fact about a baby food display set up by the Glendale Super Market was that only one brand was in glass. All brands responded to display but *the brand in Duraglas* jars was by far the leader with a 347% increase on strained baby food...and a 600% increase on chopped foods. That's the sort of sales boost users of Duraglas Containers can give their products.



A LIFT TO SELLING

When women see your product and say, "I want that," you've won the greatest market in the world, the American housewife. You can do that easier, simpler and more quickly by adding the tremendous sales power of sight to acceptance of your brand name. And when you pack in Duraglas Containers your products gain from advertisements like these, reminding millions of women every month of the sound advantages of buying products packed in glass.

OWENS-ILLINOIS GLASS COMPANY • TOLEDO 1, OHIO

Enjoy a "Lift to Living" that is a "Lift to Selling" products packed in Duraglas Containers—Fred Waring and his Pennsylvanians, over the Blue Network from coast-to-coast every Thursday Evening—10 p.m. EWT—9 p.m. CWT—8 p.m. MWT—7 p.m. PWT.

Duraglas
BOTTLES
Preserve, Protect, SELL ON SIGHT



SOME OF THE BEST KNOWN NAMES IN THE DRUG FIELD APPEAR ON NEW ENGLAND TUBES

WE'VE said it before and we say it again, because it has held true for years . . "*The Roster of New England Tube Buyers reads like the Blue Book* of the Drug and Cosmetic Industry!" Our many years of experience have proved invaluable to big and little user alike, who want the toughest, the strongest, the most dependable collapsible tube package money can buy. You'll do well to follow the example of Elizabeth Arden and many others . . buy Sheffalloy (Sheffield Process) Tubes and if your product demands it . . VINICOTE our series of more than 50 Interior Coatings, which now makes it possible to package in Sheffalloy Tubes many products heretofore considered impossible to pack successfully in these convenient, well-liked containers.

Sheffalloy
TRADE MARK REGISTERED
SHEFFIELD PROCESS
TUBES

NEW ENGLAND COLLAPSIBLE TUBE CO.

3132 S. CANAL STREET, CHICAGO 16 • NEW LONDON, CONN. • W. K. SHEFFIELD, V. P., 500 FIFTH AVENUE, NEW YORK 18
THE WILCO COMPANY, 6800 McKINLEY AVE., LOS ANGELES 1



Collector's Item

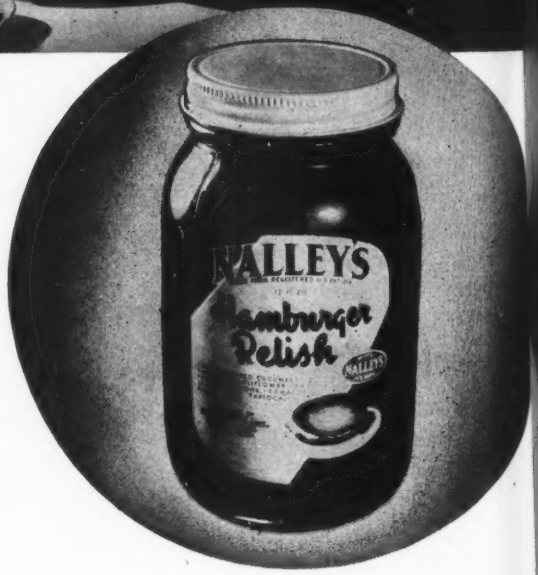
This collector of glass is an expert. She has to be. She has a family to feed and keep strong.

Your product packed in a H-A container enables her to see at once what's available on the dealer's shelves. At home, these good-looking containers give her a visual index of her requirements.

HAZEL-ATLAS GLASS COMPANY, Wheeling, W. Va.

THE TANG AND SPICE MAKE THEM EXTRA NI





Hamburgers—Oh Boy! What a satisfying snack! And they're extra good with Nalley's Hamburger Relish. Its piquant, spicy flavor blends with the meat to make it more delicious.

Nalley's Hamburger Relish is prepared and distributed by Nalley's Inc., Tacoma, Washington. Like so many quality products, it's securely sealed with Crown Screw Caps . . . the caps with the patented Deep Hook Thread which give 50% to 100% more sealing pressure with the same amount of application force.

Crown Cork & Seal Company, Baltimore 3, Maryland,
World's Largest Makers of Metal Closures.

CROWN CLOSURES



ONE *Sure Introduction* TO POSTWAR MARKETS

When America's dollar turns again to SELECTIVE, peace-time buying, you will need, and want, every sales weapon at your disposal. ☆ Surely one of the best introductions for your product to this new, highly competitive market, will be a new package . . . a package alive with color and eye-appeal; imaginatively designed and skillfully created to attain the highest degree of attention values. Milprint is ready NOW with this type of package . . . ready to give you a powerful sales weapon that will fasten the eye of the post-war consumer on your product. ☆ Consult your Milprint representative today.



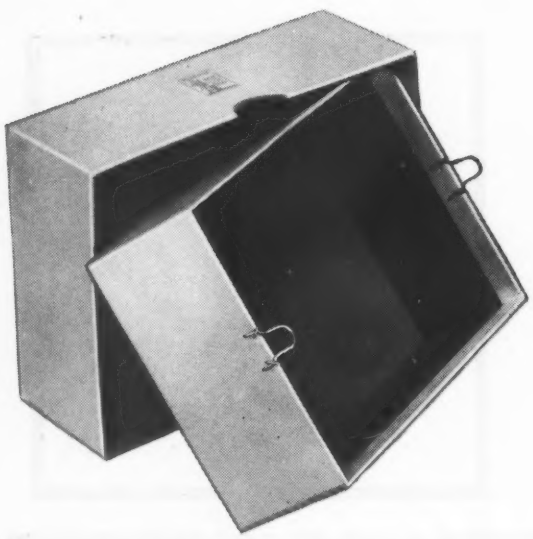
MILPRINT Inc.

PACKAGING CONVERTERS · PRINTERS · LITHOGRAPHERS

PLANTS AT — MILWAUKEE · PHILADELPHIA · LOS ANGELES



"YOU'RE ON . . . MISS CASEY!"



ith an enthusiastic, but not too dainty step, "Sarge" will strut his stuff on a crude South Pacific stage. Strictly G. I., the show will "bring down the house" . . . and spread broad grins on otherwise serious faces that daily see eye to eye with danger.

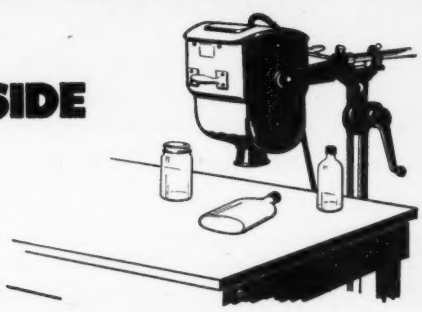
The "Sarge's" fetching wig and other theatrical necessities including makeup and scenic paints are shipped in containers similar to those which protect valuable aircraft instruments — the Mason MAILMASTER. Light in weight, rugged in construction, the Mason MAILMASTER is a favored container for overseas and domestic shipment.

The MASON BOX COMPANY

ATTLEBORO FALLS, MASS.—175 5TH. AVE., NEW YORK



THE INSIDE STORY FROM THE OUTSIDE



Pictures like these help research turn out more efficient glass

IT takes more than fine ingredients, rigid production controls, and thorough testing to make top-quality glass containers. The bottle finish, too, must be right, or even the best glass will not make a satisfactory package.

In the picture above you have an example of the care and precision with which Armstrong's Research Laboratories check just one detail of bottle design—the finish. After measurements have been verified to the thousandth of an inch by a special "screen test," the test bottles are then capped . . . and X-rayed!

By revealing exactly, and in detail, just how well the closures fit the finish, the resulting pictures guide the designers of Armstrong's glass—and of Armstrong's Molded and Metal Caps, too, in the improvement of current models and also in the designing of even more efficient new ones.

This X-ray examination of glass finishes and caps, although perhaps a minor detail in itself, is another significant example of the thoroughness with which Armstrong's Research Laboratories delve into every phase of glassmaking. Their persistent and meticulous work and the equally precise work of everyone connected with the production of Armstrong's glass have built, and are maintaining, Armstrong's reputation for top-quality ware.

For further interesting examples of the care and skill that go into the production of fine glass containers, send for your free copy of "Men and Glass." Address Armstrong Cork Company, Glass and Closure Division, 5903 Prince St., Lancaster, Pennsylvania.

ARMSTRONG'S GLASS



and **ARMSTRONG'S CLOSURES**



IT'S WHAT YOU DO WITH CELLULOSE FIBRE THAT COUNTS



Something to look forward to

Anyone who has ever sold to women knows how much they like useful attractive packages.

And right around the corner, in the future, women will find that packaging has taken a long step forward.

We don't mean to suggest that the grocery, drug, or department store of the future is going to deliver all your purchases in elaborate packages.

But we do mean that a great advance in utility packaging — decorative as well as protective—is on its way.

The war is teaching us many things about packaging. In laminated papers, resin-coated papers, paper sealings and other package papers, years of normal development have been compressed into months.

From moisture-resisting paper bags to protect dehydrated foods, to tiny paper casings for emergency drugs —paper packaging is helping in every activity of war.

Out of all this will come handsomer, more efficient packaging papers for peacetime. Here at Oxford we are conducting research on various packaging problems at this moment.

Such experience will enable us to be of greater service in many ways to packagers, just as our experience in producing a thousand miles of fine printing paper every day is proving so valuable to all users of printing.

OXFORD PAPER COMPANY

230 Park Avenue, New York 17, N.Y.

MILLS at Rumford, Maine and West Carrollton, Ohio

WESTERN SALES OFFICE: 35 East Wacker Drive, Chicago 1, Illinois

DO YOUR TUBES INSPIRE

"Love at first sight"?



When the user takes a new tube from its carton, be sure it makes a good first impression. Pleasing the eye at that important moment gets your product off to a good start.

That is why Alcoa takes extra pains in the lithographing of Alcoa Aluminum Tubes. Colors are crisp. Details are clear. That helps build sales for your product.

Although it is impossible right now to supply all the Alcoa Aluminum Tubes that are wanted for civilian products, we will welcome a chance to talk about your requirements, looking toward the day when war limitations are past. Write ALUMINUM COMPANY OF AMERICA, 2129 Gulf Building, Pittsburgh 19, Pennsylvania.

5 Advantages of Alcoa Aluminum Tubes

PURITY.. Aluminum is non-toxic, will not contaminate the product and render it injurious.

STRENGTH.. Alcoa Aluminum Tubes have sturdy shoulders and sound walls; good to the last squeeze.

BEAUTY.. Expertly lithographed decorations are crisp, colorful, tops in eye appeal.

LIGHTNESS.. An appreciable saving in shipping costs results from the light weight of aluminum.

LOW COST.. You will find the prices of Alcoa Aluminum Tubes to be interestingly low.

ALCOA

ALCOA ALUMINUM TUBES

Announcing

"PLASTIN"*

THE GREATEST CONTRIBUTION IN THE GROWING BATTLE AGAINST MOISTURE-VAPOR



The protecting hand of "Plastin" now assures the Armed Forces of freedom from the ravages of moisture-vapor. You will welcome full knowledge of heat-sealing "Plastin", which is remarkably strong and remains flexible at low temperatures.

Literature is available, showing "Plastin's" importance to every manufacturer of any product which is subject to moisture-vapor attack. To be among the first to learn complete details of this unique development, send us your name and address.

PLASTIC FILM CORPORATION

TELEPHONE: LEXINGTON 2-5458 • 475 FIFTH AVENUE, NEW YORK 17, N. Y.

*Trade Mark Reg. U. S. Pat. Off.



Christmas 1945

May it be a happier and more cheerful one



Beautiful, colorful papers help for good cheer, good spirits and warm reception.

PERFECTION BOX COVERING PAPERS
are attuned to the times—while the availability is now limited we may be able to take care of some of your needs.

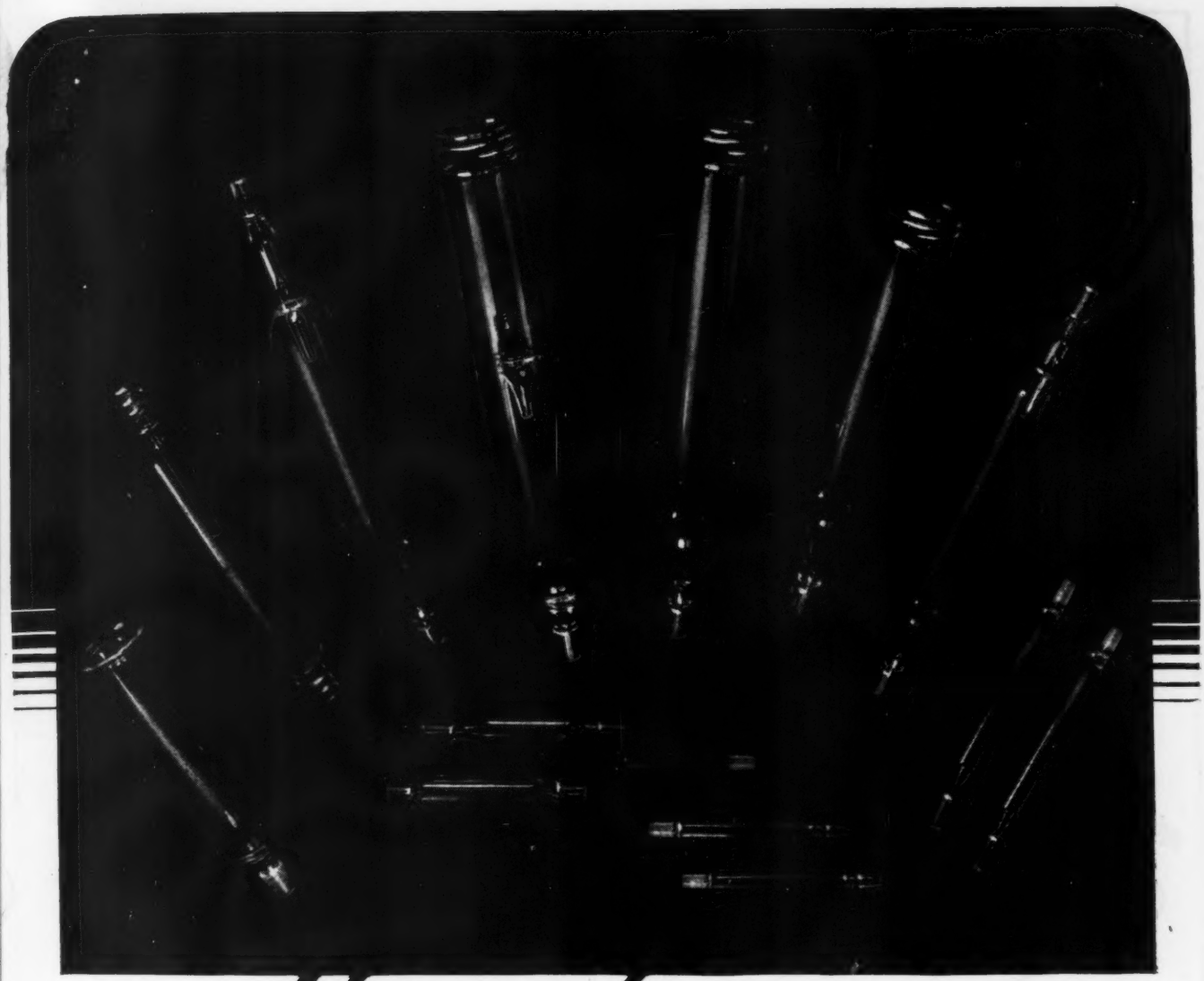


This sample Pattern 467–2 Dark Blue Suede Base.
Made in several color combinations.

ROYAL PAPER CORPORATION

Manufacturers of Decorative Papers

210-216 ELEVENTH AVENUE, NEW YORK 1, N. Y.



Through SUCH TUBES

flow whole blood, blood plasma and parenteral solutions which help save lives endangered by wounds or disease. Millions of these tubes, each designed for a specific use, form part of the Kimble contribution to achievement on battle front and home front.

KIMBLE *Glass* CONTAINERS *For Assurance*

• • • *The Visible Guarantee of Invisible Quality* • • •

KIMBLE GLASS COMPANY



Don't Leave Anything to Chance

In war and peace manufacturers recognize the importance of specifications in production. They don't toss a coin to make a decision. Equally important, and often overlooked, is the necessity for adhesives to be particularly designed for a specific job.

UPACO, in addition to featuring a complete line of high quality flexible glues, stripping glues, labeling glues and pastes, and our famous GLU-WELD water-resistant adhesives, is backed by over 75 years of experience in formulating specialty adhesives for particular requirements. The UPACO laboratories are available at all times to help you solve all adhesive problems. We are anxious to work with you on possible post-war applications of industrial adhesives, and we welcome your inquiries on problems arising from war contracts.

GLU-WELD WATER-RESISTANT ADHESIVES • FLEXIBLE GLUES • STRIPPING GLUES • TRANSPARENT FILM ADHESIVES • BOOKBINDING ADHESIVES

UPACO

UNION PASTE COMPANY

QUALITY ADHESIVES SINCE 1866

1605 HYDE PARK AVENUE - HYDE PARK, MASS.

UPACO

CASE, BAG AND CARTON SEALING GLUES • LABELLING ADHESIVES • LAMINATING ADHESIVES FOR FILMS, PAPERS AND CLOTHS



Display in Shipper Open 'em up

when they arrive and they're ready to go to work immediately. Double purpose packages—shipping box plus product display—win dealer's approval. Just a simple setting-up operation and they go into sales action immediately—thanks to H & D's simplified construction. Each box is a master salesman, prepared by expert package engineers who know, through experience and results records, how to design the kind of sales packages retailers prefer.



H&D Post-War Packaging Idea

SHIPPER DISPLAY BOX*

Trim, attractive, compact H & D Shipper-Display boxes offer these outstanding features; safe transportation; novelty die-cuts; modern design; rich color printing; attractive displays. Make your packaging pay a profit by including it in your merchandising plans. H&D's booklet, "Pack to Attract" is full of profitable ideas. Send for your copy, today.

*U. S. PAT. 2,169,240

Hinde & Dauch

AUTHORITY ON PACKAGING

THE HINDE & DAUCH PAPER COMPANY, 4514 DECATUR STREET, SANDUSKY, OHIO

Factories in BALTIMORE • BOSTON • BUFFALO • CHICAGO • CLEVELAND • DETROIT • GLOUCESTER, N. J. HOBOKEN • KANSAS CITY • LENOIR, N. C. • MONTREAL • RICHMOND • ST. LOUIS • SANDUSKY, OHIO • TORONTO

NEW 1945 PACKAGING CATALOG

POINTS TOWARD

COMPETITIVE MARKETS

Reserve copies NOW!

Bigger, better, more useful and more vital than ever before, new 1945 PACKAGING CATALOG will point the way toward the return to competitive markets. More than ever this book will be a *must* for every packager of every product, civilian and military—a handbook to help you through shortages toward competitive markets.

Outstanding among the new information will be an important symposium by the leading packaging designers of the day: "Trends in Package Design." This important contribution, which will stimulate your thinking on the latest design trends, will be illustrated with natural color photographs.

An important symposium by four leading package development engineers from four packaging industries—drugs and pharmaceuticals, food products, toiletries and cosmetics, photographic supplies—is called, "What's Ahead in Materials." Other standout material includes articles on the newest reproduction techniques and the latest developments in inks. An important article, "What To Tell Your Box Supplier," will help all packagers using this type of container in their dealings with manufacturers.

An entire new section on decorative packaging implements the editors' viewpoint that before the year is out, decorative packaging will form an important part of the packaging picture. The new specialty flexible containers, metal foil packages, cosmetic packages and other new developments will be found in the section on packages and envelopes.

The latest developments in shipping will be covered in the articles, "Veneered Packages," "Packaging of Metal Parts," "Marking of Shipments." Displays and Merchandising Principles will be expanded to include material on "New Structures for Paper Displays," "The Dealer Factor in Displays," "Fitting Displays to the Sales Spot," "Displays Will Be Lighted Again."

The famed packaging directory has been completely re-checked for accuracy. The new 1944 classification system has been retained and more sources of supply have been added.

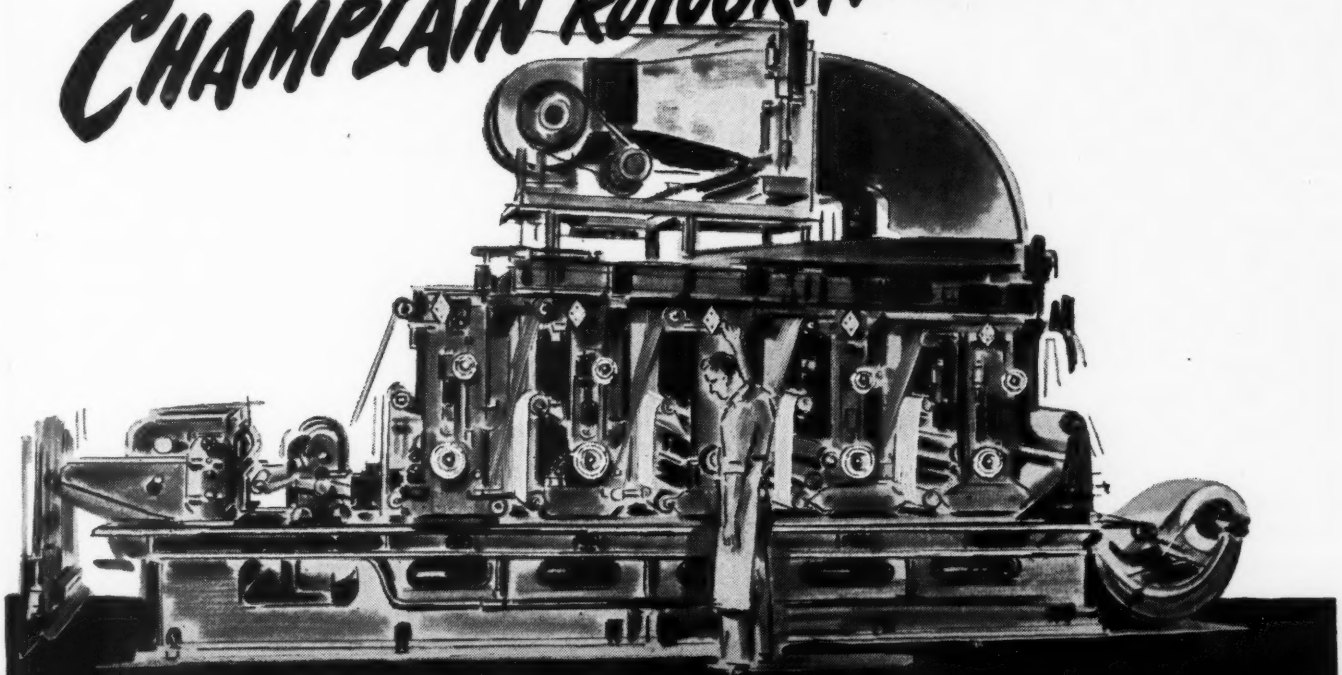
PRICE **$4.00** *PER COPY IN THE UNITED STATES*

PACKAGING CATALOG CORPORATION

122 E. 42nd STREET, NEW YORK 17, N. Y.

1 2 3 4 5 ONE CONTINUOUS OPERATION ..COLORS

CHAMPLAIN ROTOGRAVURE PRESS



INSTANT drying gravure inks make it possible for you to print any number of colors, one on top of another, and fabricate or rewind the printed stock, without offset in one continuous operation. The simplicity of the gravure principle puts an end to many of the difficulties of register control encountered when drying time must elapse between printing of colors or between printing and fabricating.

With the Speedry enclosed ink fountain (a patented Champlain feature) the ink remains uniform, no splashing onto the web is possible and the fountain protects the ink from foreign particles. Highly volatile solvents may be used without fear of evaporation. A wide variety of stocks, including cellophane and glassine, can be printed successfully in multi-colors in one continuous operation.

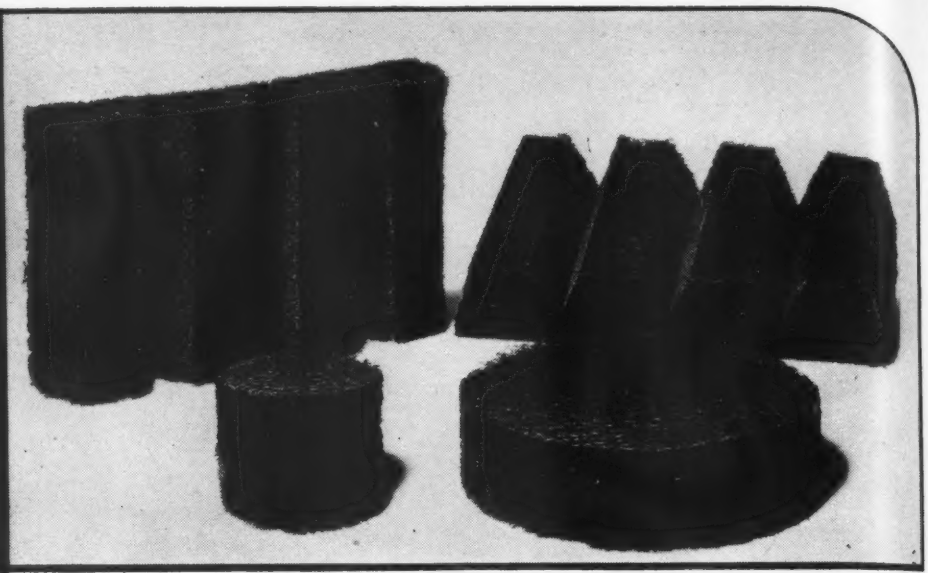
Write today for booklet entitled "Advantages of Rotogravure for Package Printing."

Champlain COMPANY, INC.

SUBSIDIARY OF THE FRED GOAT CO., INC.

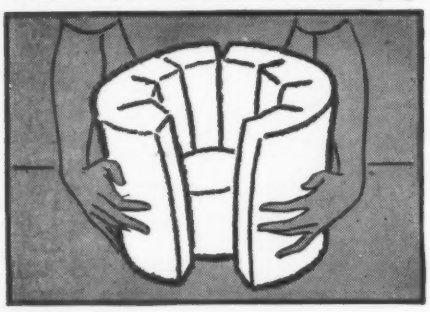
636 ELEVENTH AVENUE . . NEW YORK 19, N. Y.

HERE IS A PACKING MATERIAL





STEP 1 Just bend one side section around plug.



STEP 2 Place other side section in position.



STEP 3 Place instrument inside container, and put top on container. Assembly is now ready to slide into canister or cylindrical case. Item is then protected against vibration and shock.

That "*Cradles*" delicate instruments!

Next to the human hand for holding delicate instruments free from vibration and shocks, bonded fibre combines better cushioning with extremely light weight and time-saving economies.

With a set of bonded fibre parts, such as illustrated at left, frail assemblies are given full protection – and this without the help of an expert packer. Even the "greenest" worker can't go wrong with a set-up like this.

Made of curled hair or other natural and synthetic fibres, with selected elastic binders, this cushioning material is produced in a wide range of uniform densities and qualities to meet widely varied requirements. Tell us your needs now. Our research laboratories will give you closest cooperation.

The amazing part that our bonded fibre products are playing in planes, ships, landing craft and other combat equipment, also in conveying delicate replacement parts and assemblies to repair depots, cannot be disclosed now. But the knowledge gained will be invaluable to peacetime industry.

Sponge Rubber Products Co.

213 Derby Place, Shelton, Conn. • Plants in Derby and Shelton, Conn.

***Sales Offices:* New York • Chicago • Detroit • Washington**

WORLD'S LARGEST MANUFACTURER OF CELLULAR RUBBER PRODUCTS

To Build Profits add Beauty!



Janis Carter, starring in Columbia's Picture "UNTIL TOMORROW"

ON THE SCREEN the beauty of lovely Janis Carter increases "box office" for Columbia Pictures.

OVER THE COUNTER the beauty of a sparkling new package can increase sales *for you!*

THE BEAUTY of this display package helps sell Luxor's Gardenia Dusting Powder. That's because forty-three million women, who look at packaged products daily—whether selecting kitchenware, confections or cosmetics—habitually choose "the best looking" products and packages. Look at *your* package. How does IT rank with packages of competing products—in *self-selling* attractiveness?

WAY TO A BETTER PACKAGE

The Ritchie way integrates art and artisanship—to give you a better package at a low unit cost. A package that quickly, unmistakably identifies, fully protects and conveniently dispenses your product. A practical, production-planned package—easy to fill or pack, easy to handle, stack and display—but *above all* designed for eye-appeal, for quality-impression, for *beauty that sells!*

THE 5 ESSENTIALS OF A SELLING PACKAGE

1 It must be practical, production-planned, economical to manufacture, easy to fill or pack.

2 It must fully protect and conveniently dispense the product.

3 It must be easy to handle, stack, display.

4 It must *proclaim* the quality and identity of your product.

5 It must be good looking, memorable, ATTRACTIVE!

W. C. Ritchie and COMPANY

8842 Baltimore Avenue, Chicago 17

SET-UP PAPER BOXES • FIBRE CANS • TRANSPARENT PACKAGES

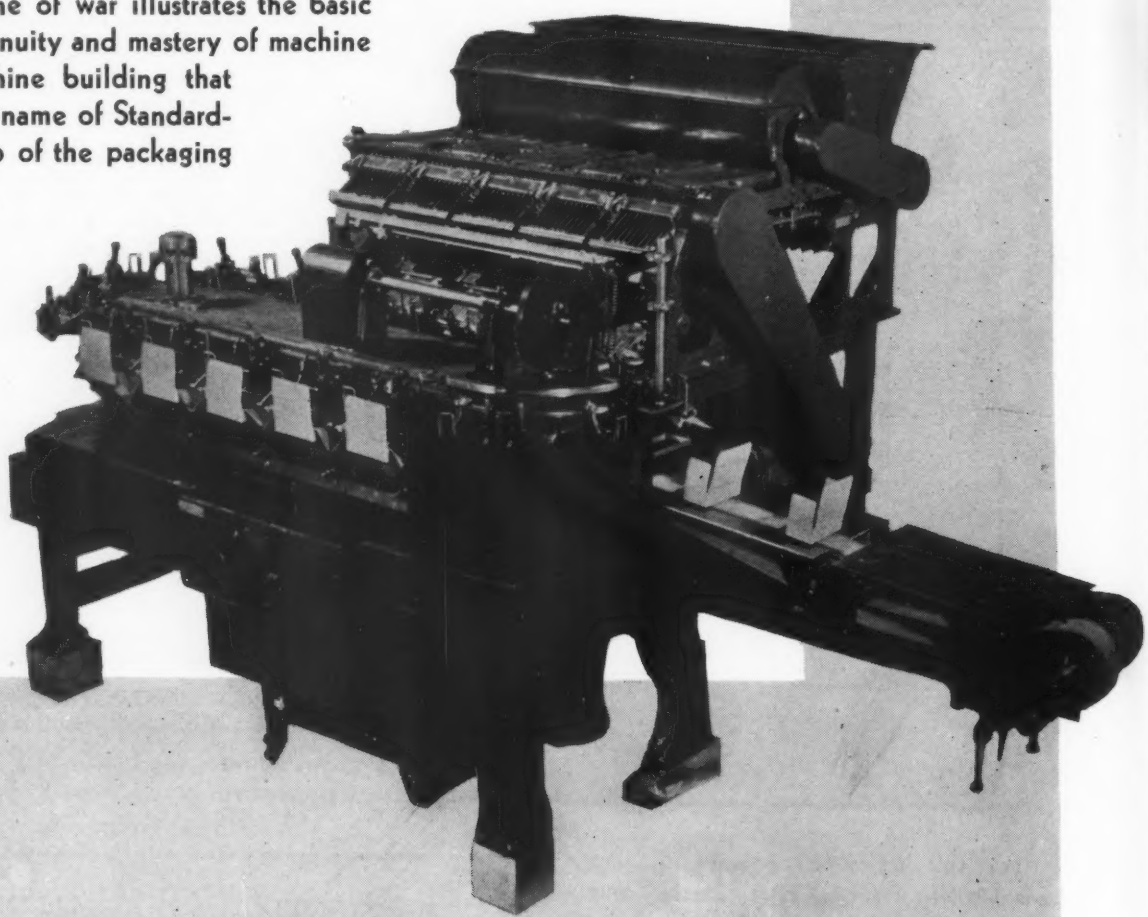
NEW YORK DETROIT LOS ANGELES ST. LOUIS MINNEAPOLIS

NOW IT CAN BE SHOWN

Standard-Knapp developed this machine for packing caliber .45 cartridges into boxes of 50.

Without going into detail, we can tell you that the machine answered a deep-felt and pressing need to get munitions to the front "enough and on time". It dispensed with manpower when that commodity was too precious to waste and does the work at hand rapidly and efficiently.

Typical of Standard-Knapp's peacetime service, this machine of war illustrates the basic engineering ingenuity and mastery of machine design and machine building that have placed the name of Standard-Knapp at the top of the packaging machinery list.



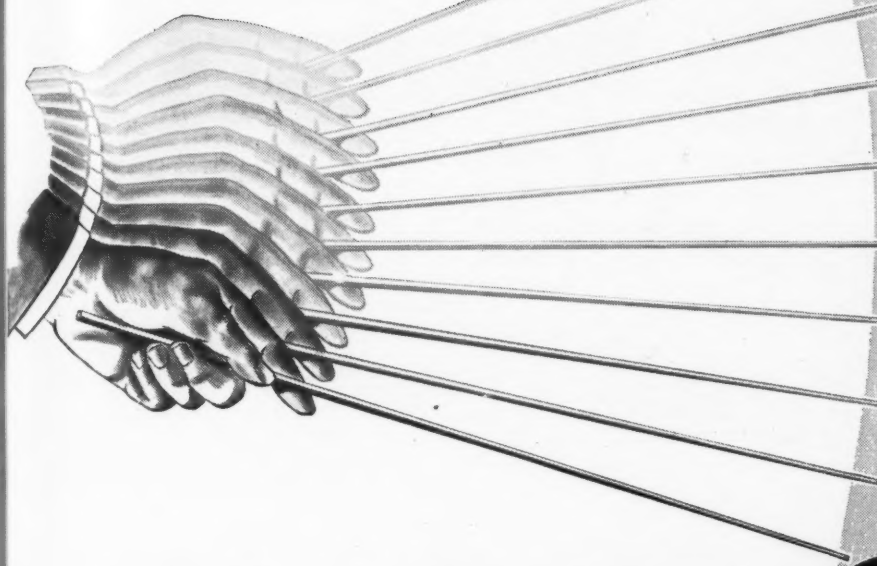
STANDARD-KNAPP CORP.

MANUFACTURERS OF CASE SEALING, CASE PACKAGING, AND CAN LABELING MACHINES

FACTORY and GENERAL OFFICES—PORTLAND, CONNECTICUT

570 Lexington Avenue, NEW YORK 12, N. Y.
221 North LaSalle St., CHICAGO 1, ILL.
145 Public Square, CLEVELAND 14, OHIO
300 Seventh Street, SAN FRANCISCO 2, CALIF.
430 S. San Pedro Street, LOS ANGELES 13, CALIF.
3224 Western Avenue, SEATTLE, WASH.
1208 S. W. Yamhill Street, PORTLAND 5, OREGON
Paul Brown Building, ST. LOUIS 1, MO.

Windsor House, Victoria Street, LONDON, ENGLAND



BAGS

CARTONS

OVERWRAPS

SPECIAL COATINGS

COMBINATIONS

LAMINATIONS

CELLOPHANE

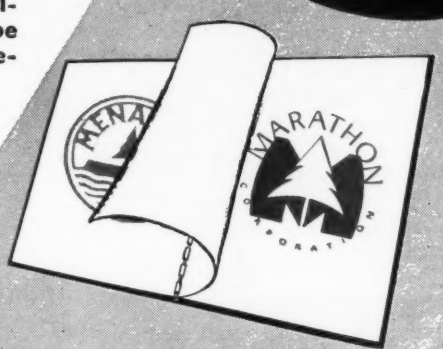
FILMS

FOILS

MARATHON

Builds Packages From ALL These Materials

The objective of Marathon* packaging recommendations is THE CORRECT PACKAGE FOR YOUR JOB. The materials or combinations of materials best suited to the requirements are chosen. The package construction and design which is best adapted to its needs is selected. The entire job can be done by Marathon. This singular service, combining manufacturing and converting operations, has achieved remarkable results in package development. We welcome direct inquiries which will be referred to our experienced field representatives.



★ The trade name "Menasha" has been changed to "Marathon." There is no change, however, in sales policies or personnel which will continue to pace the field in package development.

MARATHON CORPORATION

MENASHA, WISCONSIN

Formerly The Menasha Products Co.



Right now, while you are busy with wartime production and so are we, is the ideal time to do the experimental work on your postwar package.

To find the best possible answer to your particular packaging problem, samples should be made of the most suitable material (whether available in volume now or not), then thoroughly tested in your laboratory and ours—under conditions of actual use. That takes time.

Then there's the question of design and here too ROYAL can be of genuine help, for we have had fifty years of specialized experience in the packaging field.

If one of your requirements is *unusual protection*, you'll certainly want to consider the many features of "FLAV-O-TAINER," the patented duplex bag that is heat-sealed on all seams, providing superior protection against air, moisture, grease and odors.

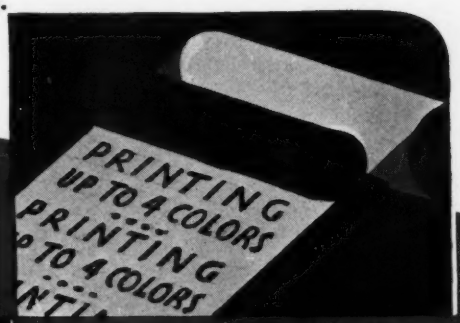
"FLAV-O-TAINER"

—to be available in the following Royalflex films—SELLOFLEX, which is cellophane laminated to itself or to other appropriate material; LUMINEX, aluminum foil laminated to another appropriate material; PLIOFLEX, pliofilm laminated to itself or appropriate material.

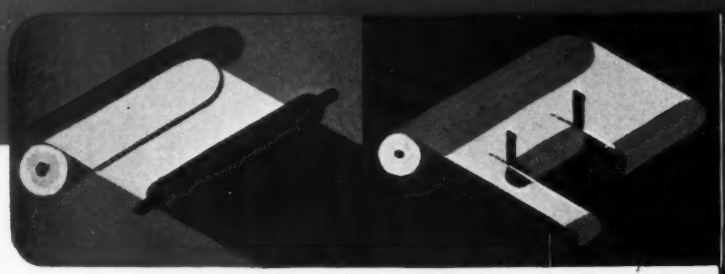
THOMAS M. ROYAL & COMPANY • *Philadelphia 20*

FROM OUR NEW QUARTERS WE NOW OFFER THESE SERVICES:

In addition to printing on cellophane, acetate, glassine and foil papers, we also serve as converters of cellophane to the trade . . . Because, at our new quarters, these facilities have been greatly expanded, we welcome the opportunity to discuss your wraps for foods and other packaged products. Design services are also available for your postwar planning.

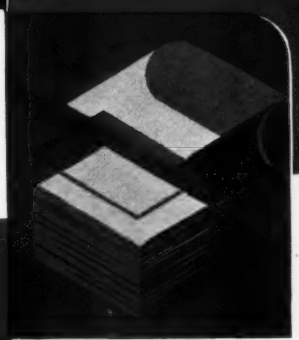


PRINTING . . . on Cellophane, Acetate, Glassine and Foil Papers . . . Rolls and Sheets . . . Up to 4 colors



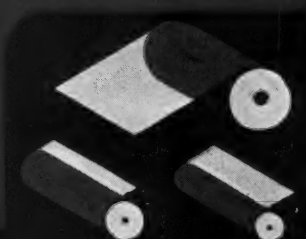
COATING . . . Color-matching on Cellophane and Acetate

SLITTING . . . Cellophane rolls. Various widths up to 40 ins.



SHEETING . . . All sizes, up to 36 in. wide, 84 in. long

REWINDING . . . Cellophane . . . from large diameter rolls onto rolls of small diameters



ROTO-LITH Ltd

30-32 WEST 13th STREET

NEW YORK 11, NEW YORK

Look what happened to a bucket of paint!



IT WAS like this. The problem of storing and stocking all the required shades and tones of colors was always one of the leading headaches in the paint business.

Until the Murphy Varnish people of Newark, N. J. hit upon the idea of having all the different tinting pigments packaged in little, one-shot containers. This was the first *new* idea in paint merchandising in fifty years.

These made it possible for dealers to carry little more than basic white paint in the customary cans. The desired tints and colors are available when, as, and if needed—by simply adding the contents of these individual containers to the white paint.

However, great as the idea was, it almost died aborning. Murphy could not find satisfactory containers for these pigments.

Then, we here at Sun Tube stepped in. We suggested our wonderfully convenient one-shot tubes, known as Unitainers. And the Murphy people decided to give them a try.

The result, in case you don't know the paint business, revolutionized merchandising and packaging developments in that field.

Here's where you come in

You may be wondering what this story has to do with you . . . and *your* business.

Just this. It's a typical example of the way Sun Tubes may answer your packaging problem. An example of the type of thinking our designers and engineers might bring to bear on your particular problem—either now or postwar.

You already know the virtues of the collapsible tube. The fact that it is convenient and compact, that it's germ- and light-proof. That it is virtually unbreakable, that contents won't dry out even in use.

What you may *not* know, however, is that new developments have made Sun Tube the ideal container for a host of products never hitherto even considered prospects for a tube.

If you would like some information and advice on your own packaging problem, won't you give our nearest representative a call or send him a card today?

SUN TUBE CORPORATION

Hillside, New Jersey

CHICAGO 1, ILL.
James L. Coffield, Jr.
360 No. Michigan Avenue

ST. LOUIS 1, MO.
M. P. Yates
Arcade Building

ST. PAUL 1, MINN.
Alexander Seymour
615 Pioneer Building

LOS ANGELES 27, CALIF.
R. G. F. Byington
1260 North Western Ave.

BASE STOCK

FOR

COATING

GUMMING

PYROXYLYN

FOIL

COMBINING

LAMINATING

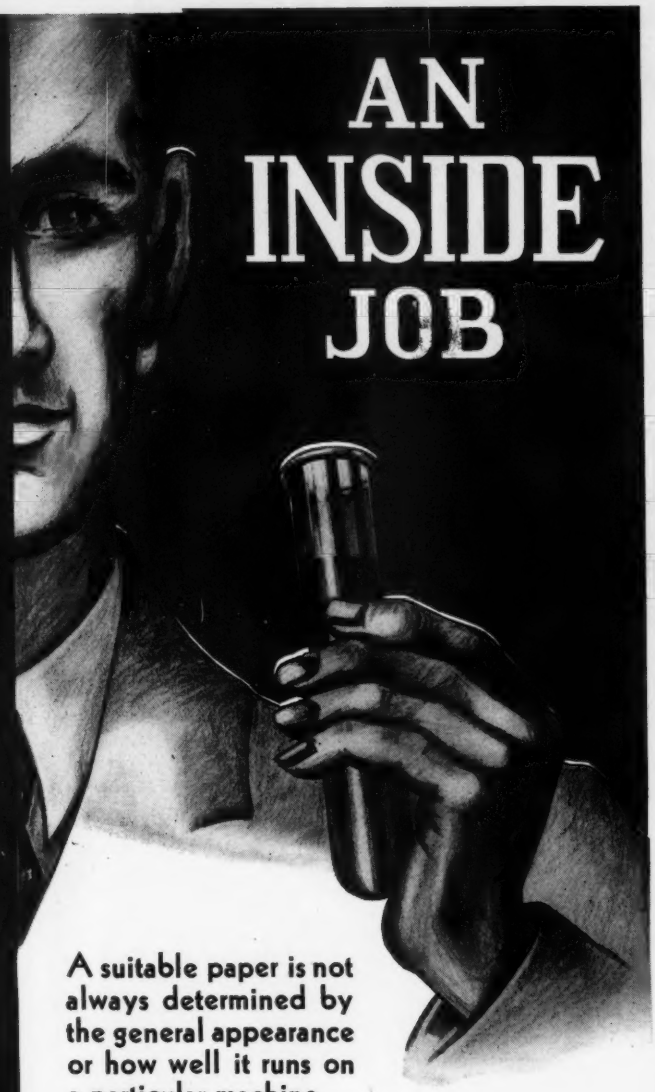
LACQUERING

ALSO

BOX WRAP PAPERS

PRINTING PAPERS

BOARD LINING



AN INSIDE JOB

A suitable paper is not always determined by the general appearance or how well it runs on a particular machine.

In many instances the requirements call for special properties on the "inside" of the paper which can only be known by the aid of chemistry and precision instruments. FITCHBURG'S research technicians have developed many special grades of packaging papers. Maybe your problem is an "Inside Job." Our facilities are at your disposal.

THE CONVERTING PAPER DEPARTMENT OF THE PACKAGING INDUSTRY

Fitchburg Paper Company

250 PARK AVENUE NEW YORK CITY Mills: FITCHBURG, MASSACHUSETTS 11 SOUTH LASALLE STREET CHICAGO

Sealing the Closure of an All-Ceramic Container— Another Job for CEL-O-SEAL BANDS



From away down South come these pure tropical fruit delicacies . . . protected on their journey to the dinner table by Du Pont CEL-O-SEAL* cellulose bands. The attractive all-ceramic container in which they're packed is another example of the wide range of materials which can be sealed with CEL-O-SEAL . . . glass, metal, porcelain, plastic, paper, rubber and cork.

CEL-O-SEAL bands hold the closure tightly in place. They seal out dust, dirt and other impurities . . . seal in flavor and purity.

Available in smart, distinctive colors and printed color-combinations, CEL-O-SEAL bands add valuable eye-appeal. And they can be made to serve as a second label by indelible printing of trade-mark or sales message.

Today, as you plan your products of tomorrow, consider the advantages of CEL-O-SEAL bands. Write for full information.

*TRADE MARK

CEL-O-SEAL bands and WIND-O-BAND* seals are sold by:

E. I. du Pont de Nemours & Co. (Inc.)
"Cel-O-Seal" Section, Empire State Bldg., New York City 1

Armstrong Cork Co., Glass & Closure Division, Lancaster, Pa.

I. F. Schnier Co., 683 Bryant St., San Francisco 7, Calif.

DU PONT

CEL-O-SEAL BANDS

DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

Thousands of Miles from Home!



ON a bobbing battlewagon somewhere in the Pacific or a remote ship's store in the Far East Brooks & Porter displays are doing a fine job.

* * *

Fifty years of know-how enters into the designing, construction and production of point of sale units that are handsome, durable and built to resist everything but sales.

A 'phone call to WA 5-9492 may result in the solution of YOUR perplexing merchandising problem

BROOKS & PORTER, INC.
304 HUDSON STREET • NEW YORK

Packaging and Display specialists for half a century



Dry-Pack Locker Bag, product of Benj. C. Betner Co. Lined with Riegel's Laminated Wet-Strength Glassine.

WET STRENGTH

A NEW QUALITY CAN NOW BE ADDED TO GLASSINE AND GREASEPROOF PACKAGING PAPERS

Any glassine or greaseproof packaging paper (plain, waxed, lacquered or laminated) can now be produced with the added quality of WET STRENGTH. This is done in the process of paper manufacture and provides a substantial saving in comparison with other wet-strength materials. This accomplishment makes the use of glassine and greaseproof available to a whole new field where the possibility of condensation, or the presence of water in a product, might otherwise cause package failure.

Riegel's Wet-Strength Papers have already proven their worth in special wartime usage. In addition, a limited tonnage can now be offered for permissible civilian use. Send for samples and our technical bulletin on this new Riegel development.

Riegel PAPER CORPORATION

342 MADISON AVENUE, NEW YORK 17, N. Y.

129


Creative
In the Cosmetic Field the word Creative is synonymous with Distinguished "On The Package" Printing.
Colorful-Permanent-Integrated . . . this method has been refined by us to the point where it meets the specific needs of Package Decoration. On all surfaces including glass and plastics.
Creative
PRINTMAKERS GROUP
14 WEST 17th STREET, NEW YORK · CH 3-6803
SURFACE DECORATORS FOR THE PACKAGING FIELD

APPLICATIONS OF ROGERS PRODUCTS


Resin-fiber blank for machete handle


Loose-leaf binder back


Rubber-fiber shoe midsole


Jewel box components


Elec. insulator for transformer


Waste basket


Resin-fiber canteen cap

HE'S USING A ROGERS PRODUCT



THIS shows a use for a ROGERS product which is the result of deft blending of rubber and pure cellulose fibers, making a sheet that is easily cut into midsoles, perhaps for the shoes you're wearing now.

If you knew the characteristics of this ROGERS product, you might decide that here at last is the material for a special part of one of your own products.

You may already use a ROGERS product every time you take a step. And you might profit by making your next business step a letter, wire, or phone call for:

☐ SAMPLES OF FABRICATED PARTS, some of which are shown above, left. Extensive tool and die facilities and testing laboratories in ROGERS' own mills.

☐ DATA ON THE UNIQUE mechanical, electrical and chemical characteristics of ROGERS wet-laminated, fibrous sheet materials.

☐ DETAILS OF THE ROGERS PROCESS of wet laminating so that fibers stay interlocked after fabrication, giving components unusual strength.

☐ INFORMATION ABOUT THE ROGERS method of producing with only 25 lbs. of materials, production samples of totally new fibrous and plastic sheets. "You name it, we'll make it."

RUBBER-FIBER MIDSOLES

Three weeks after hearing of the need for this material, ROGERS was producing it in completely satisfactory carload lots. This same speed and skill can be applied to your own special problems, through ROGERS exclusive "production sample" facilities.

ROGERS

PAPER MANUFACTURING COMPANY

115 Mill Street, Manchester, Conn.

MANUFACTURERS AND FABRICATORS OF SPECIAL FIBROUS SHEETS

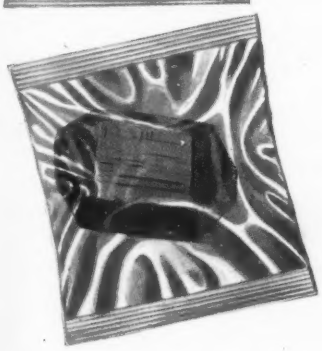


SNIP IT, SEAL IT, SHIP IT!

in Traco "All-Size" Bags

Tubular Form—1000 Foot Reels





Make quickly in your own plant TITE-SEAL Cellophane Bags of any size that seal out dust, air, water and moisture-vapor. They protect military supplies from damage in transport or storage.

Acceptable for Methods I and IA, type III packaging . . . available in 3, 4, 6 and 8 inch widths under proper priority . . . 1000 feet to the reel. Saves stocking large quantities of special-sized bags. (Stock Bags also available in above widths.)

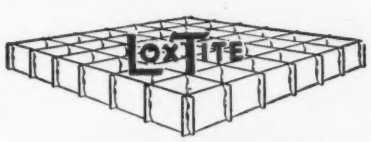
"All-Size" Containers and custom made bags can be furnished plain or printed in any widths or lengths desired on special orders of sufficient quantity.

Heavy foil-lined laminated bags meet every requirement of Methods I, IA and II Military Packaging. LOXTITE Partitions give crash protection to fuses, rations, and delicate or fragile items.

Reasonably prompt shipment can be made on government orders bearing end use. A card will place our technicians at your command.

TRAVER CORPORATION

Dept. MP35 • 358-368 West Ontario Street • Chicago 10, Illinois



BOX PARTITION DIVISION
404 N. Sacramento Blvd., Chicago 12

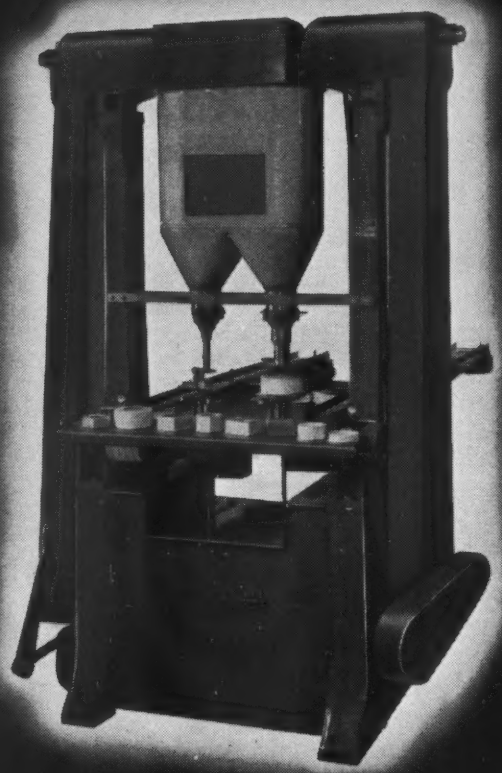
MODEL

MH

"BOND"

Semi-automatic

VOLUME FILLER, WEIGHER OR PACKER-WEIGHER



For Face Powder, Talcum, Flour, Soap Powder, Tooth Powder, Cocoa, etc.

Many manufacturers who do volume filling, gross weighing or packing have such a wide range of package types and sizes that they do not need fully automatic machines. The Model MH "Bond" Semi-automatic is just the machine for this field as it is easily converted from one package size to another. And it can be used for any type of container —either bag, envelope, carton, jar or can!

A single operator, with a single Model MH, can fill up to 50 containers per minute, with negligible variations in packed weight.

The Model MH is a twin-station semi-automatic machine. We also manufacture many other models of semi-automatic and automatic machines from single to four stations.

If you package cosmetics, drugs, chemicals, foods or cleaning powders, call on U. S. Automatic for the best machine to fill your requirements.



A representative group of samples from the McKesson & Robbins line, which is being packaged on the MH.

Send U.S. details on any of your packaging problems —we have the machines and the engineering background to help solve them.

US *Automatic Box Machinery Co. Inc.*

Owning and Operating

NATIONAL PACKAGING MACHINERY CO. • CARTONING MACHINERY CORP.

18 ARBORETUM ROAD, ROSLINDALE, BOSTON 31, MASS.

Branch Offices: NEW YORK CLEVELAND CHICAGO
LOS ANGELES (KRUGH EQUIPMENT & SUPPLY CO.)



BLACK POT WITH THE RED FACE

Here's a back-of-the stove argument that proves a packaging point.

Few products are so perishable as coffee – with its volatile oils in which freshness, fragrance and flavor reside. Preventing their escape is a made-to-order job for Keller-Dorian's functional packaging papers.

Here's why: These new functional packaging papers are grease, and/or vapor, moisture, and light tight. Foreign odors or flavors can't penetrate; sealed-in freshness and flavor can't get out.

Keller-Dorian functional packaging papers are available in two coatings: a plastic emulsion and an aluminum foil. Both coatings are flexible, and will not peel or crack. Neither will they get brittle or tacky at such temperature extremes as 190 above or 50 below zero. Furthermore, either type may be *heat sealed.*

Now, every foot of the new paper has gone to war. It's protecting grease-packed machinery and precision parts from corrosion while enroute overseas to fighting fronts. But soon these Keller-Dorian functional papers will again be busy on the civilian front – preserving freshness; protecting perishable products.

In the meantime, let us help solve your packaging problems – by the sure-fire Keller-Dorian test and trial method. First step: Let us send you testing samples and data sheets without cost or obligation. Why not write now?

KELLER-DORIAN
CORPORATION
Empire State Building
New York 1, N.Y.

FUNCTIONAL PACKAGING PAPERS *for Protecting Perishable Products*

Here it is!

NON-WICKING CORD

for

DIP-COATING

in

Ethylcellulose Compounds

F. C. C. DipCord

made of

Du Pont Cellophane

Licensed under Patent No. 2,041,418

F. C. C. DipCord **is listed as an approved Ordnance packaging material. Its non-wicking property assures dipped metal parts freedom from moisture and internal corrosion.**

F. C. C. DipCord **is available in various gauges for dipping light or heavy parts.**

Send for samples — mention weights of parts to be dipped.

FIBRE CORD

(Division Kary-Safe Paper Bag Co., Inc.)

MANUFACTURERS

of Cords and Ribbons

755 East 134th Street **New York 54, New York**



"The bigger the family—the better the service"

THAT goes for businesses and families both! Continental has the experience, technique, resources and facilities to give you the service you want.

We make such a variety of containers you can be sure of an impartial analysis of your problem.

Continental now covers every phase of packaging efficiently—metal containers, liquid-tight paper containers and cups, fiber cans and drums, steel pails and other heavy-duty containers.

We're pretty busy serving Uncle Sam now. But keep your eye on Continental! And on Continental's trademark, too. The Triple-C stands for *one* company with *one* policy—to give you only the very best in quality and service.

Tune in: "REPORT TO THE NATION" *every Saturday over coast-to-coast CBS network*

CONTINENTAL CAN COMPANY, INC.

CONTINENTAL PAPER CONTAINER DIVISION

FIBER DRUMS The Container Co., Van Wert, Ohio

LIQUID-TIGHT FOOD CONTAINERS Boothby Fibre Can Co. Roxbury, Mass.

PAPER CUPS Mono Containers, Newark, N. J.

COMBINATION PAPER AND METAL CONTAINERS
Headquarters: 330 W. 42d St., N. Y. C.

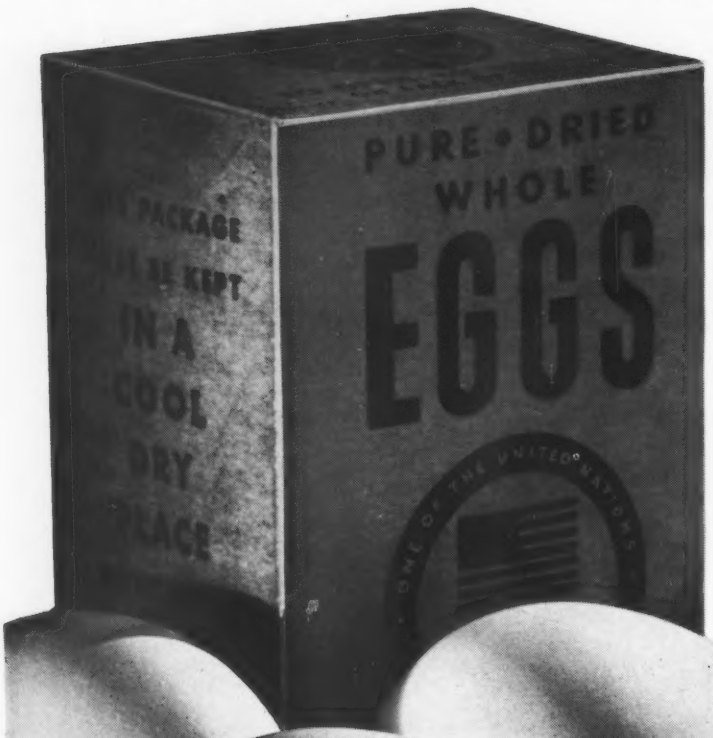
13 Plants—Sales offices in all principal cities



Continental has a full line of fiber drums for shipping dry products, resins, rosins, asphalt, grease and other semi-liquids. Sizes range in capacity from 10 to 65 gals.; "Stapak" drums from 2 to 32 gals.; "Fiberpak" drums from ¾ gal. to 67 gals.; Leverpak" drums from 24 to 75 gal. cap. The "Leverpak" drum is illustrated above.

No Air-Holes

IN THIS DEHYDRATED FOOD PACKAGE!



Wartime experience has shown that packaging dehydrated foods calls for a wax coating that can take the rough handling the packages are bound to get.

One little break...or air-hole...in the wax film and moisture seeps in to spoil the food.

On many dehydrated food packages now being shipped overseas, Socony-Vacuum's famous microcrystalline waxes are helping solve this air-hole problem. Blended with paraffin wax, these specially developed products form tough, durable films that stand up under rough handling. Just as important, the films remain flexible at extreme low temperatures.

Microcrystalline waxes are marketed as Socony-Vacuum Process Products. Let your Socony-Vacuum Representative tell you all about them, give you performance facts and figures.

SOCONY-VACUUM OIL CO., INC.

26 BROADWAY, NEW YORK 4, N. Y.

CALL IN SOCONY-VACUUM PROCESS PRODUCTS RESEARCH AND SERVICE!

Process Products
SOCONY-VACUUM

Standard Oil of New York Div.
White Star Div. · White Eagle Div.
Chicago Div. · Lubrite Div.
Wadhams Div.
Magnolia Petroleum Company
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EFFICIENT ADHESIVES HELP TO KEEP THESE GUNS FIRING



Official U. S. Army Signal Corps photo

EXAMINE these empty shell containers carefully. There's more to their story than meets the casual eye. They've delivered the goods — an endless supply of heavy ammunition in perfect firing condition. How? With the help of tube winding adhesives that securely bond and form the multi-ply walls of fibre shell containers.

Relatively few persons realize this fact . . . not even our boys in the foxholes . . . that the little known adhesive industry is serving the war effort in many, many ways. Adhesives also make possible the protective packaging of small arms ammunition . . . the sealing of rifle envelopes . . . the laminating of paper bomb rings . . . the protective packaging of replacement parts for guns, tanks and planes.

Adhesives help to supply this ordnance protection against the corrosion extremes encountered in overseas shipping and exposed dump storage in steaming jungles and frozen forests.

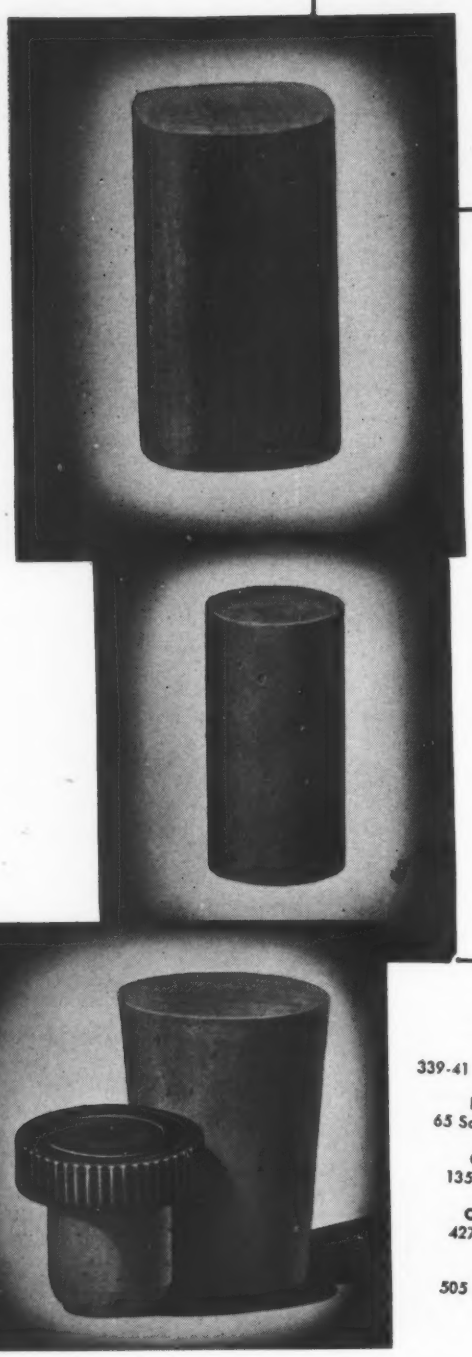
We mention this efficiency not in self-praise. But merely to pass the word along that as an industry we have an unlimited knowledge of adhesive formulations for specific war requirements. We'd like to know of more ways of doing our part to hasten the day of victory.

Adhesives Manufacturers Association of America

441 Lexington Avenue, New York 17, N. Y.



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Closure Service is more than fitting a cork to a bottle. Our purpose is to secure the most practical cork sealing for the individual product. Cork in itself is one of nature's most unique materials, but, because it is produced and processed in different grades, for so many purposes, the application of cork to closures must be by specialists who know cork from long experience. Cork has been our business for 80 years. If you have tough requirements in sealing we may be able to help now. Mundet Cork Corporation, Closure Division, 65 S. Eleventh Street, Brooklyn 11, N.Y.

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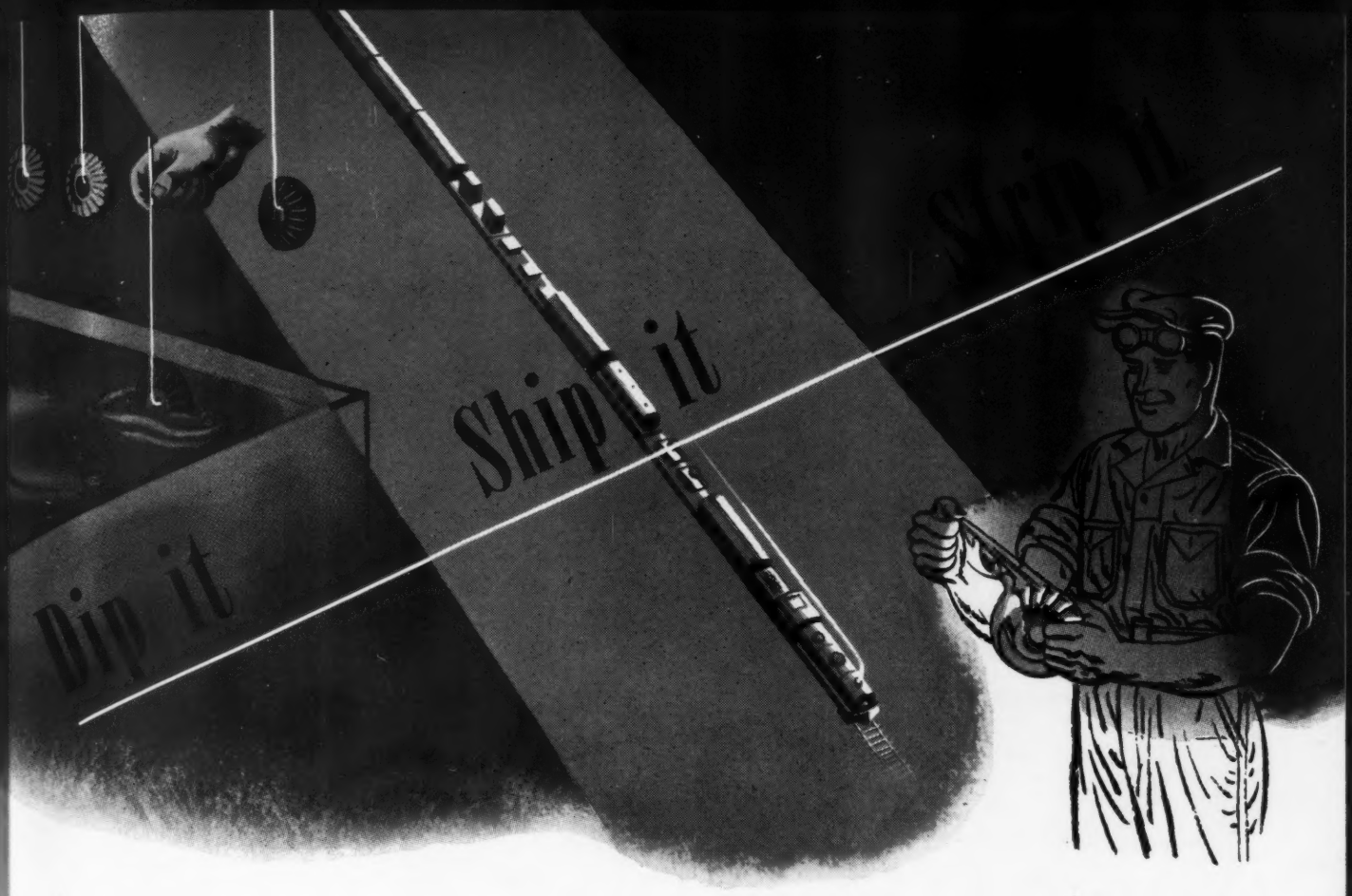
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Metal parts immersed in a hot dip of Stripcoat are covered with a tough, efficient "skin" that protects against moisture, corrosion, and scuffing. At destination, or even following long periods of storage, Stripcoat is easily slit and stripped off. For these reasons, Stripcoat is widely used today for packaging war parts—tomorrow it will be used to ship and store safely mechanical parts of all sizes and descriptions. Why not learn *now* how Stripcoat will fit into *your* postwar packaging plans?

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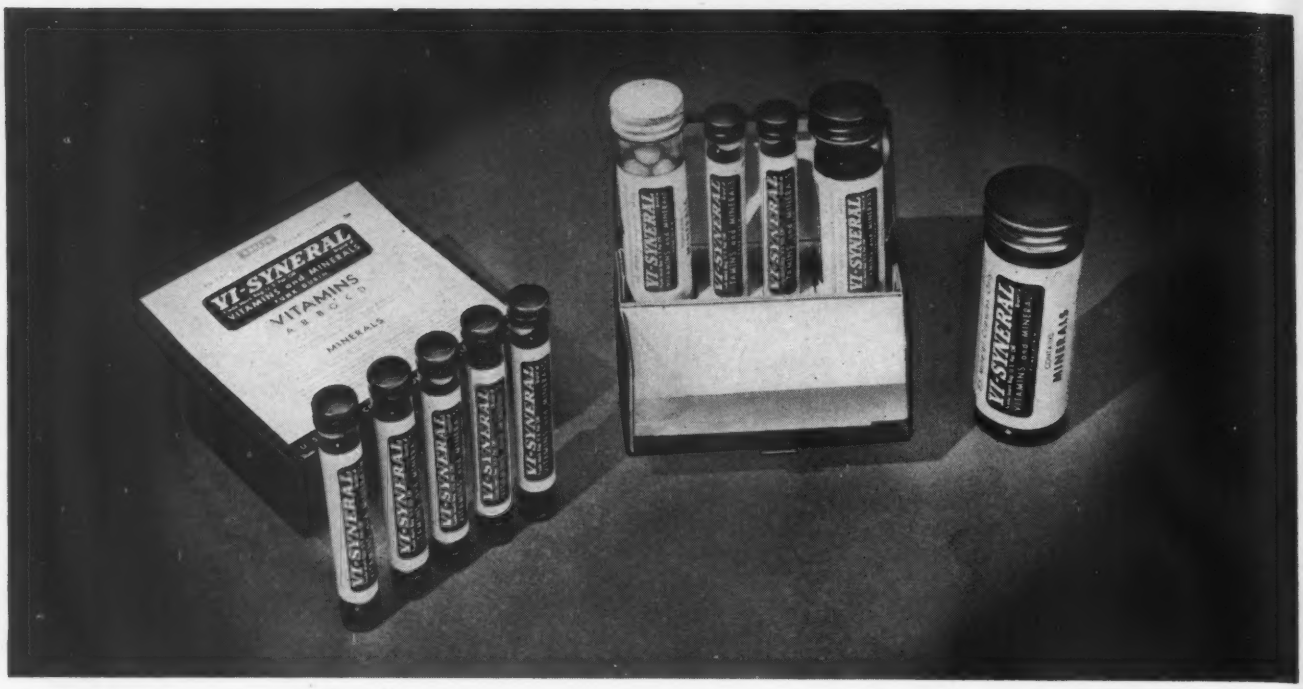
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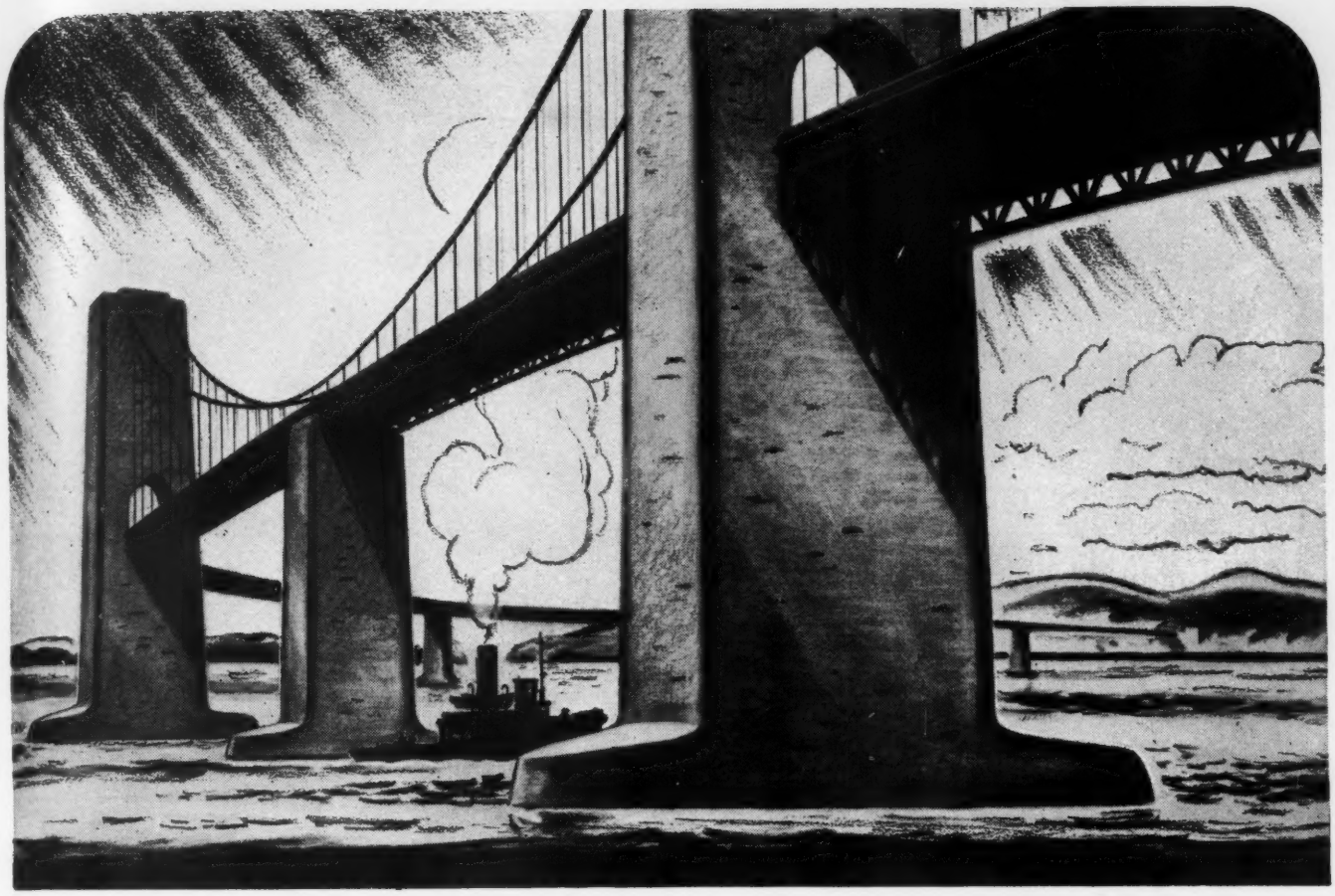
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These men are ready and eager to apply their time and talent to a constructive analysis of your present package, regardless of whether you require sheer, structural strength; distinctive product-identity; economy of packing and shipping . . . or downright sales-appeal! Set-up paper boxes have these qualities . . . and more, and only set-up paper boxes have ALL these points of superiority! It will pay you to investigate their unlimited possibilities. They're "custom-built" for YOU!

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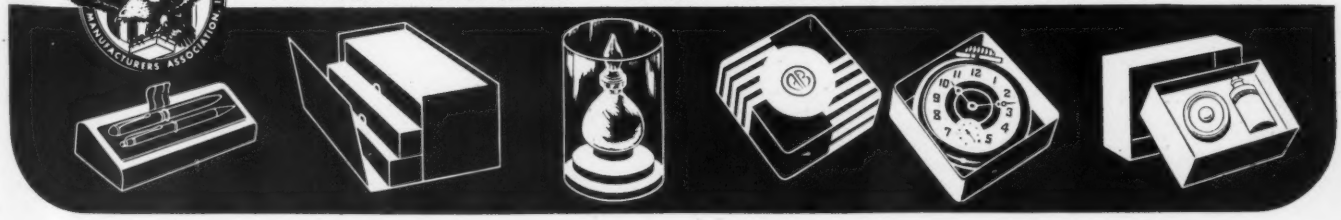
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Heat Sealing: Darex Laminating Adhesives do not flow or delaminate under heat sealing conditions.

Bond Strength: Darex Laminating Adhesives give high bond strengths over a wide temperature range.

Stability: Darex Laminating Adhesives are stable at normal operating temperatures. They are easy to use and can be kept continuously molten since they do not stratify or throw out constituents.

Moisture-Vapor Transmission: Darex Laminating Adhesives have been compounded to give you the degree of protection against moisture-vapor transmission that you need.

Creasing: Because of their formulation, Darex Laminating Adhesives give chamois-like characteristics to laminated sheets. This greater flexibility lends itself to folding carton manufacture and bag forming where scoring and creasing cannot be avoided.

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Darex Laminating Adhesives are designed to bond non-protective or semi-protective sheets to themselves or other bases to form protective packaging materials. We do not claim that Darex Laminating Adhesives will solve all laminating problems, but our experience with them indicates that they offer to the industry a series of new materials whose properties package users have long sought. Our technical staff welcomes the opportunity to discuss these products with you.

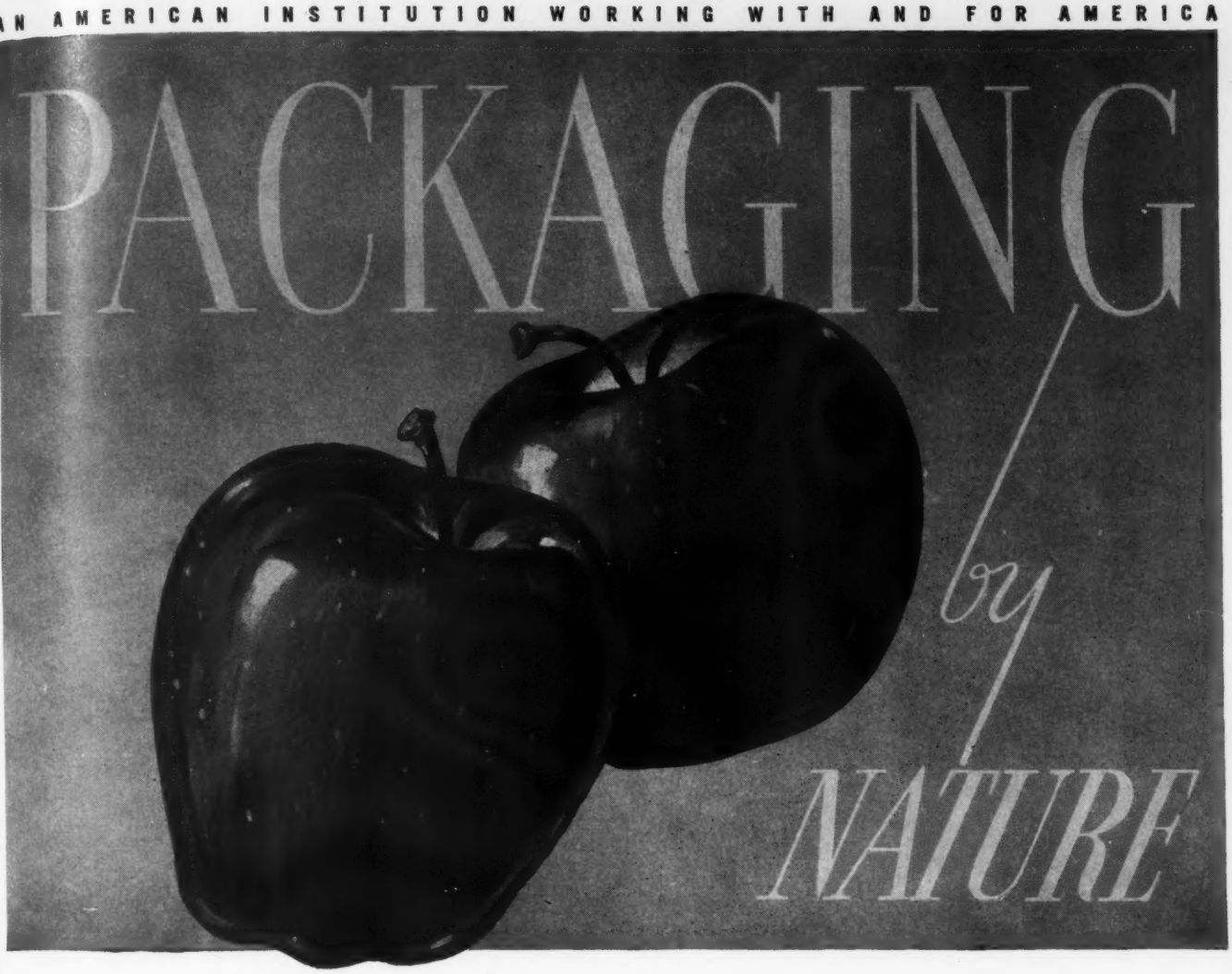
Darex Laminating Adhesives

Manufacturers of Darex Thermoplastic Coating Materials and Adhesives for protective packaging.

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AN AMERICAN INSTITUTION WORKING WITH AND FOR AMERICA

PACKAGING by NATURE



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MEETS JOINT ARMY & NAVY SPECIFICATION J.A.N.-P-128
For WATER-RESISTANT TAPE

• SOLSEAL Water Resistant Tape is made expressly to meet Joint Army & Navy Specification J.A.N.-P-128, under which the use of water repellent tapes on certain shipments is now mandatory. SOLSEAL is recommended particularly for the sealing of interior waterproof packages for overseas shipments. Get in touch with your McLaurin-Jones distributor, or with us, for samples.

SOLSEAL
LABEL PAPER



FOR SHIPMENTS REQUIRING WATER-RESISTANT LABEL PAPER

• For labeling overseas packages . . . for labeling any shipments on which water-resistant labels are required . . . suggest SOLSEAL Water-Resistant Label paper.
Made of 60 lb. Kraft, SOLSEAL is not only water-resistant, but will withstand the effects of heavy humidity . . . even actual immersion in water, as well as temperature extremes. It adheres firmly to fibreboard containers, to glass, and to some metals. Ask your merchant for samples and complete details about the printing quality of McLaurin-Jones Solseal Label Paper.

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TO IDENTIFY FOOD PRODUCTS THE MODERN WAY

Developed as a result of government instructions to packers to place bands on frankfurters, sausages and other prepared meats in conformity with Pure Food Laws. Odorless—therefore particularly well adapted for labeling foods. **EASILY ATTACHED** . . . heat sealing. Temperature for proper sealing depends upon length of time of contact with heating element and amount of pressure applied, but 225°-250° F. appears to be satisfactory on most equipment. Sticks to moisture-proof cellophane at 225°-250° F. Send for test samples.

COMPLIES WITH ALL GOVERNMENT REGULATIONS

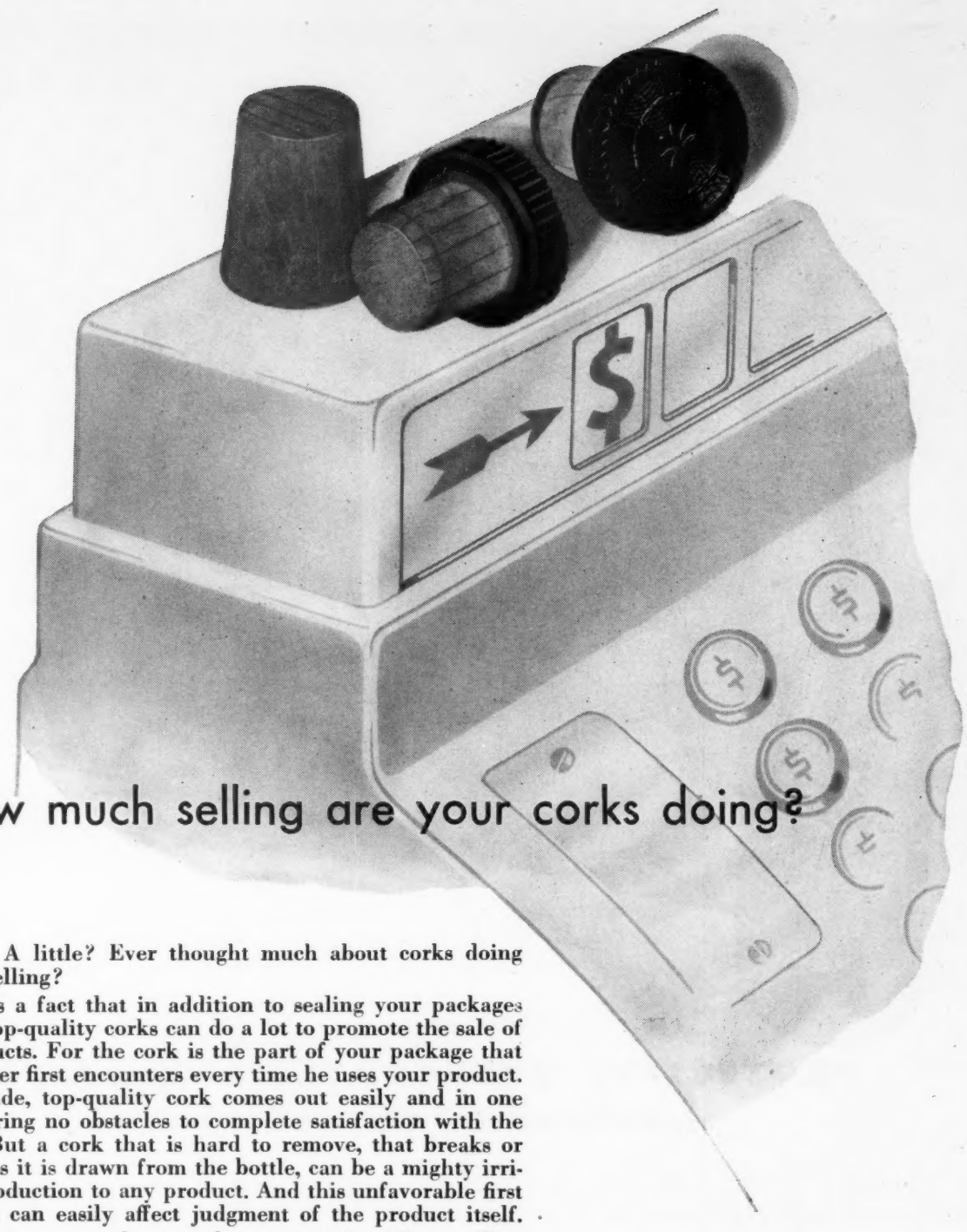
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Old Tavern is a proven economical metallic paper with many virtues of pyroxylin coating. Both papers have an air of quality and refinement that transmits itself directly to the product . . . adding to its eye-appeal . . . to its sales value. Both are well known for the splendid service they have given in the packaging field during pre-war years.



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NONE? A little? Ever thought much about corks doing any selling?

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Included in Armstrong's line are straight, tapered, shell, flange-top, and embossed-top corks. For information and samples, get in touch with your Armstrong representative, or write the Armstrong Cork Company, Glass and Closure Division, 5903 Prince Street, Lancaster, Pennsylvania.



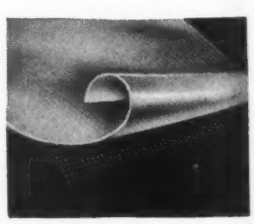
ARMSTRONG'S CORKS and CAPS



PROTECTIVE OVERCOATS for Spark Plugs ...tailored by Mr. Cellophane

VITAL PARTS for fighting machinery must arrive at the battlefronts absolutely free from corrosion. That's why spark plugs, valves and other ordnance parts are sealed in a special laminated sheet of Sylvania cellophane and fabric after being oil coated. This special wrap is *oil-proof* . . . keeps the protective oil coating locked in... insuring protection from water and moisture-vapor.

Sylvania cellophane appears on all fighting fronts in many important roles. But the developments Sylvania is making today will mean more uses for cellophane—and better cellophane—in postwar tomorrow.



SYLVANIA CELLOPHANE

Made only by SYLVANIA INDUSTRIAL Corporation

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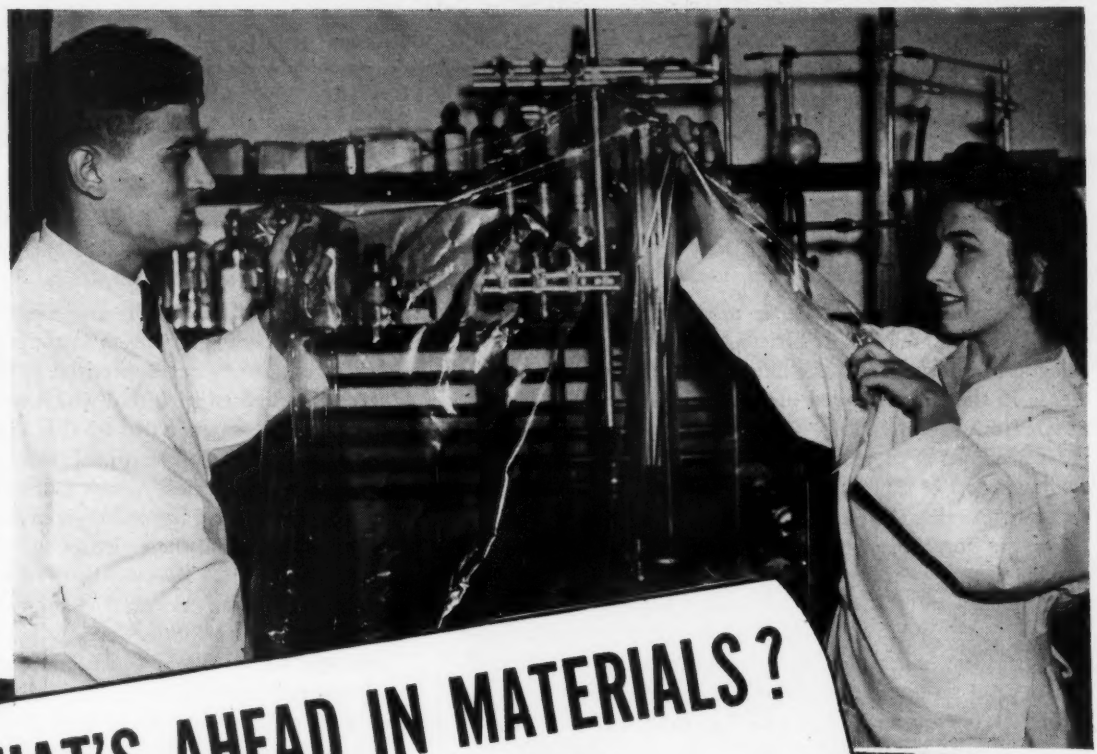
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MODERN PACKAGING
VOLUME 18 MARCH, 1945 NUMBER 7

PHOTO, THE GOODYEAR TIRE & RUBBER CO., INC.



WHAT'S AHEAD IN MATERIALS?

. . . a symposium

A revealing panel discussion by four leaders in four important fields of packaging—foods, drugs, toiletries, photographic supplies.

Through circumstance, the packaging field has broadened its conception of materials. Many of the wartime developments and achievements appear to be almost miracles. Reflection will show, of course, that this is far from the case—instead, research, science and extreme effort have produced these astounding changes in materials and in their applications.

"Progress" is usually the term applied to changes which occur as the result of scientific study and test. Unquestionably this term covers the material changes *under the present conditions*. But will this "progress" meet civilian and peacetime requirements? What materials—formerly scarce—will return? What new materials will remain?

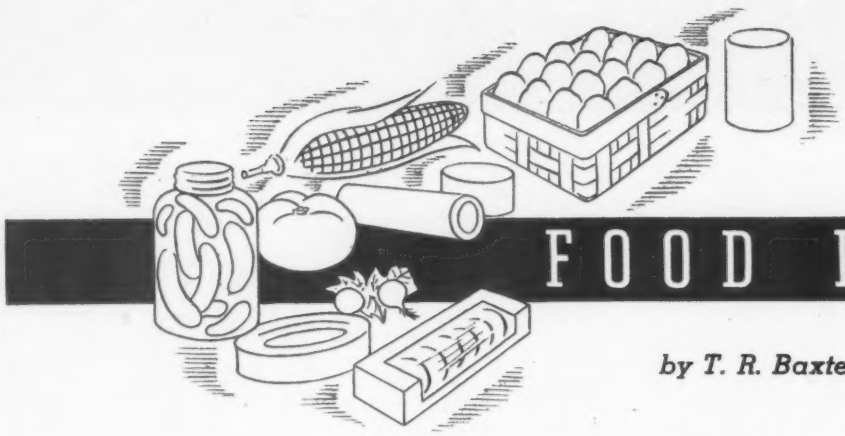
The forecast of materials is something like the forecast of weather—nobody really knows until it happens. But, if conditions are thoroughly studied and intelligent and scientific consideration applied, a fairly accurate "antecedent calculation" may be made.

Who is equipped to make this prediction? Logically, the *users of packaging materials*. Some of the leading manufacturers have been asked to state their materials forecast. They have been asked specifically to indicate the prognosis for paper and paperboard products, laminations and combinations of paper and other flexible films, glass containers, closure materials—cork, rubber, wood, paper, metal, plastic—metal foils, metal containers, new substitute coatings and lining materials for metal containers, collapsible tubes and substitutes therefor.

The four articles which follow have been selected as representative of viewpoints embracing the entire packaging field, In order, they will embody manufacturers' predictions from the following aspects:

1. Food products
2. Drugs and pharmaceuticals
3. Toiletries, soaps and cosmetics
4. Photographic supplies

These experts agree that an accurate forecast of materials is impossible, but the sound and logical opinions expressed should give the reader a basis for making his own calculations.



FOOD PRODUCTS

by T. R. Baxter, Standard Brands, Inc.

In the consumption of paper products, whether made in sheets, or board for folding boxes, solid fibre for shipping containers, fibre drums and the like, there has been a steady increase in the tonnage used in the manufacture of these materials from 1940 to date. The most noticeable increase is in the consumption of paper used in the manufacture of fibre drums. Most of this is due to the large use of these materials for the packaging of products for shipment overseas.

For the duration of the war, the consumption of raw materials out of which these paper stocks are made will remain close to these levels. It will be some time after hostilities before this kind of raw material will be converted entirely for home consumption. Also, it is not expected that the Scandinavian pulp producing countries will soon be shipping to the United States in prewar volume. The first available supplies will go to England and other nearby countries that have suffered for the want of paper making materials.

Some time will elapse also before civilian industry will be able to take advantage of some of the newer types of chemically treated paper products that will have the characteristics we want in packaging. It is not the writer's opinion that there will be a sudden release of these things. They will come gradually at first and gather momentum as rehabilitation takes place in Europe and as these new things find their place in this country.

Bear in mind, on account of restrictions, many of these new and better paper products have not been available to civilian industry and they will have to be evaluated and their potentialities discovered or determined before they find their places. This change might be slow by reason of the fact that there are but few places in civilian industry where package specifications of the kind employed on products for overseas shipments will be required. Consequently, specifications as laid down by the WPB will not necessarily be adopted as such in our postwar packaging and, as stated before, the change will probably be a gradual one by virtue of the time it takes for the re-evaluation to take place.

We can look forward to new chemically treated papers that will have better functional qualities than those available before the war. These papers will be made to fit specific needs. Types are being made at present with superior wet strength, others that shed free water, and have surprising resistance to prolonged immersion. Use will certainly be made of products of this character in the frozen food industry; and where dry and hygroscopic products are concerned, papers with extremely low M.V.T. rates will be used. Where the last mentioned function is concerned, laminated combinations of paper and synthetic film will come into play.

Some people seem to feel that there will be many new materials having new and different physical appearance. Opinions regarding the details and extent of these changes vary greatly. There is no reason to suppose that postwar packaging is going to be revolutionized as far as appearance is concerned, compared with that which we knew before the war.

The progress demanded by the services, has accelerated all research and development programs. War services have been demanding the utmost of raw materials, and have used these materials up to and beyond their capacity. This tendency has helped to establish their virtues as well as to disclose some of their weaknesses. Specifications of the armed forces, for instance, have been revised continuously, so as to reach higher performance levels as new materials appear. This has been practiced to the extent that some standard and normal commercial materials have been rejected. Through this period of accelerated development and production, then, performance requirements have been more rigorous than experienced in peacetime. We should realize, therefore, that many materials used by the armed forces do not directly apply to our peacetime packaging. They may demand waterproofness to the point where the container must withstand immersion, or extremely long storage under severe conditions, also great physical durability. There will be no commercial requirement equivalent to storage under the palms of Tarawa or on the beaches of Attu. We can be sure, therefore, no company will take over army specifications extensively, but they will use the materials and the experience to a limited degree. For example, the material and technique used to make a component of the "K" Ration can be used for the commercial production of a similar product, but actually as a less durable and less protective package.

Postwar we can expect all of the old packaging materials and package forms to be back on duty. Cellophane will still be a most popular transparent film. Glass and tin will be used for processed foods and vacuum packages. Various papers will look the same and will be doing the same kind of job. There will be new materials and new combinations of them, but they will not be as apparent as many think. Some of the old laminated structures will be improved by new plastic laminants, having greater durability, better moisture protection, etc., although they will appear and look the same as before. Time will pass before any one of these will do some specialized job and find its place in the packaging field. In other words, many postwar packaging changes will occur that will affect the functions of the materials employed and which will not be visual or obvious, except in performance and service.

War pressure "to produce" has developed a momentum, which should carry on over an appreciable period. Industrial laboratories take new developments from the test tube through the pilot plant stages more rapidly. For a consider-

able period, then, we can expect new materials to be offered frequently; at least, until research activity subsides to a more normal level. Government packaging specifications have been very effective in improving quality and uniformity, by the control exercised over materials during war production. These specifications will be a very healthy thing to carry over to our peacetime packaging activity, because they will operate to improve the uniformity and quality of all items. In general, they will be reflected in the quality and performance of packaging materials modified to cover peacetime activity.

Every change in the formulation of a product to be packaged, or the introduction of a new packaging material, necessitates some sort of a re-evaluation of the ability of the package to arrive in the consumers' hands in usable condition.

The question may well be asked as to why it is necessary to re-evaluate these materials critically after such changes, when it has not always been so important to do so in the past. This is because the trend in packaged products is to more complex and pre-treated forms, while many years ago a high percentage of packaged goods were commodities such as sugar, flour, salt, etc. As products become more complex and more sensitive, it becomes necessary to check each change of ingredient or material to see whether or not stability has been affected.

The trend toward small unit packages before the war will be emphasized in the postwar period. This will make it necessary to use more protective materials and to form the package more precisely to insure preservation of the contents.

On the subject of glass containers, to all external appearances this material will be the same as it was before the war.

There will be improvement in the design and form of glass containers. Progress has been made in the technique of molding lightweight glassware. The industry has learned how to distribute the material throughout the walls of the package more uniformly, and also more about the heat treatment of glass, both of which contribute to a stronger package.

Improvement also has been made in handling and conveying equipment, so that higher packing speeds can be maintained with less breakage.

Glass is a plastic material and the container is made or fabricated, if you will, in a mold. For most part, molded products cannot be made with great precision, because of the tendency of the product to expand or contract after leaving the mold, and because of certain dimensional changes that take place by reason of the subsequent treatment.

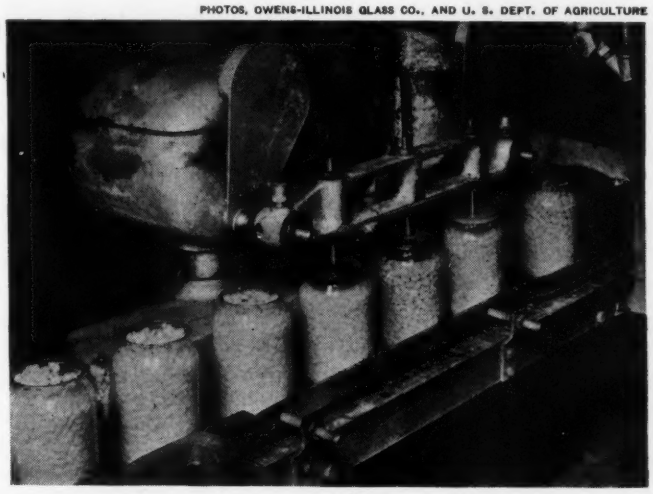
Until recently, it has been difficult to achieve an efficient seal on glass equipped with threaded finishes, due to the unevenness of the surfaces against which the seal is made. Improvements have been made in the closures themselves and in the finish on glassware that will enable the packer to obtain a seal at high speed that for all practical purposes will be just about perfect.

The accomplishment of an efficient seal on glassware is due to the combined efforts of both glass and closure manufacturers. As far as closures are concerned, wood and paper

Will improved methods of making and handling glass (right) enable the glass industry to hold the food packaging business won during the war? Will canned goods hold their own (left, below) in competition with processing such as dehydration (right, below), developed during the war?

PHOTOS, OWENS-ILLINOIS GLASS CO., AND U. S. DEPT. OF AGRICULTURE

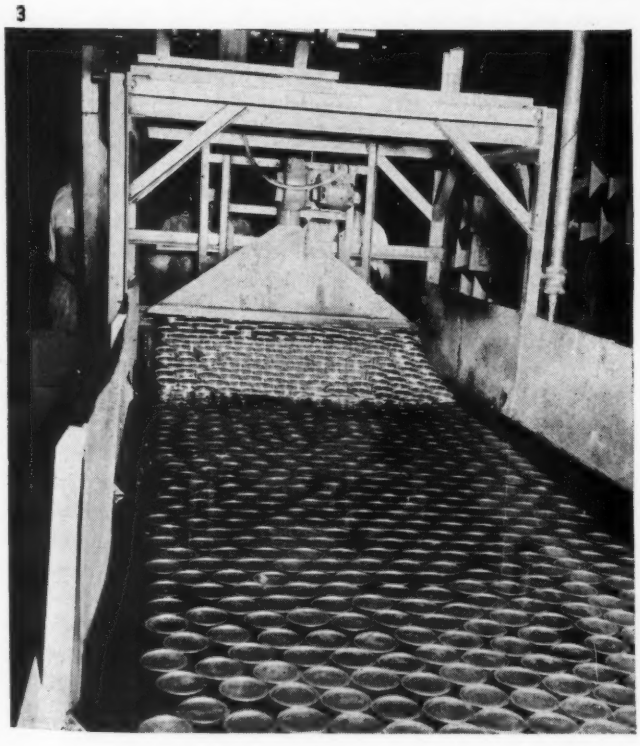
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were substitutes—more or less "War Babies." The effective materials of which we can expect them to be made in the future are metal, plastic and cork with rubber, synthetic, paper and foil and various combinations of such materials used as liners.

Considering, then, that glass as a material will stand higher initial vacuum and also higher pressures than most materials, it is reasonable to expect that glass will find many new places in the packaging field, and also because lightweight ware will be less costly.

Glass, because of its transparency, embellishes many products and it invites visual inspection, which is a matter of great importance to the consumer, and will account for continued and larger use postwar.



DRUGS and PHARMACEUTICALS

by H. E. Nack, Sharp & Dohme, Inc.

As the zero hour approaches, we must decide just what packaging materials, old and new, will be selected for postwar use. The pharmaceutical and biological manufacturers, marketing a line of several thousand items are facing a task requiring careful study, good judgment and possibly a little guess work.

Packages adopted of necessity, as temporary expedients, have been "on trial" now for two years or more and have attempted to do their duty. But on the whole they have served only as substitutes. Although we are grateful for their success in keeping our products on the market, nevertheless, the time has arrived when we should evaluate our conversions on a basis of sound package engineering.

Many of our substitute wartime packages have been and are even more costly to fill because they require special equipment. The yardstick used in such an industry as ours differs from that used in a specialty house which merchandises a few large selling products. We must package many items on standard equipment and cannot retain after the war a substitute requiring special equipment, even if the substitute has been doing a good job.

Super packages—plastic and what-not—are romantic. But first consideration must be given to tested materials, while our dream packages are cautiously appraised. When the war is over many materials that have been scarce during war years will return, and some of the improvised and new materials will have earned for themselves a definite place in packaging.

Paperboard products—Folding cartons which have been eliminated in the interest of conservation, not only will return, but many products which were cellophane or glassine wrapped will be cartoned in order that they may be packaged on high-speed production lines.

Set-up boxes are still indispensable, and many biological and pharmaceutical products will be continued in this type package.

Paperboard cannisters—It must not be supposed that because of the trend away from paperboard canisters, with or without metal ends, they are destined to be eliminated. Lightweight, moisture-proof canisters fabricated from paperboard, laminated with the new protective coatings, can easily find a place in the drug industry if protection, cost and operational factors are comparable to metal.

Laminations and combinations of paper and other flexible films—Unit packages, widely used in the drug industry for tablets, pills, capsules and powders, will find expanding uses because of the availability of improved flexible material with high M.V.T. ratings.

Cellophane and other flexible films will enjoy greatly increased usage and the newly developed war films will give us a wide range for selection. Their use as overwraps to give our packages extended shelf life and sales appeal is a foregone conclusion.

Glass containers—Glass still remains the most popular medium for the drug industry. Its value has been increased by the use of lightweight and standardized models. Private molds will be insisted upon for specialty products. In general, we may expect to see products now packaged in substitutes return to glass. Products now in glass will remain so.

Collapsible tubes and substitutes therefor—High-grade pharmaceutical products will unquestionably be converted to pure tin tubes when such tubes are again available.

Lead, aluminum, magnesium and plastic tubes must be considered as future possibilities. It may be advisable, however, to await developments, which may take several years, toward protection of the container and its products by the use of wax and synthetic coatings. Moreover, the plastic tube has many weaknesses which may be ironed out.

Closure materials: cork, rubber, wood, paper, metal and plastics—Cork, rubber, metal and plastic closures will still continue to be indispensable. Wood and paper closures are economically contra-indicated.

Metal foils—The protective properties developed in the last few years, by the use of plastic laminates, vinylite coatings, etc., and the anticipation of new high-speed equipment will undoubtedly make foils among the outstanding packaging materials of the postwar era.

Metal foils will find increased use as individual wraps and as overwraps for small packages requiring long shelf life.

Metal containers—Tin or blackplate cans in the larger sizes for bulk items are scheduled for quick return, product protec-







These three photos illustrate a collection of Sharp & Dohme packages—prewar metal ones, wartime alternate combinations of paper and metal, all paper, paper and plastic, etc. Many of these of necessity have been "on trial" for two years or more as alternates, but says Mr. Nack, "On the whole these packages have served only as substitutes and the time has arrived when we should evaluate conversions on a basis of sound engineering."

tion and cost consideration make this conversion mandatory.

Merchandise or over-the-counter items will be at least temporarily restored to tin, pending a careful study of improved paperboard containers.

Aluminum containers will find an important place in postwar packaging because of their light weight, provided they are available with interior fracture-proof linings to insure the stability of the product.

Plastic containers—These are destined to appear gradually on favorite products that justify "de luxe" treatment, when samples and technical data are available for study and research.

We should like to look forward to stepping forth into new realms of packaging when the war is over. But before we can enter on such a venture there must be months of stability tests, cost comparisons, studies of production problems and sales evaluation to determine the practicability of our dream packages. During those months we shall be only too glad to stand again on firm ground, returning to our old safe and reliable containers.



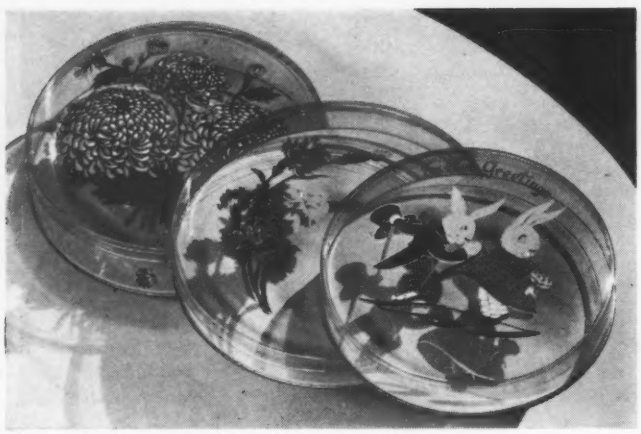
TOILETRIES, SOAPS and COSMETICS

by E. H. Balkema, Colgate-Palmolive Peet Co.

During the war period we have been required to improvise and use materials which would have been given little consideration in the prewar period. Formerly, tests would be conducted for a year or more before approving a new package and then only for limited distribution. This practice is not applicable to the present time, for today we frequently conceive an idea and are required to have it in production on a nationwide scale within a period of thirty days. Very few of the more complicated packaging problems now permit more than ninety days for their solution. In this work we are guided by newly developed break-down tests, some of which give us results within ten days that formerly required up to six months.

Packaging is a progressive science, based upon an accurate knowledge of the individual product and the materials available to house it properly permitting delivery of the product to the consumer in usable condition. Experience indicates that after a package has been developed time reports from the field, customer's reactions and our ever-changing ideas of what constitutes a proper package will indicate the desired changes and improvements.

With the above test experience as a background and our ever-changing ideas on the use of packaging materials, it is



PHOTO, CELANESE PLASTICS CORP.

Will high-speed methods of producing rigid transparent boxes bring prices down comparable with paper boxes?

most difficult to look to the future and accurately forecast what materials, which are now scarce, will return. Equally difficult to forecast, is what new materials or new uses of old materials developed during the war period, will remain.

Paper and paperboard products—Due to various limitation orders placed on the paper mills and their inability to secure the desired pulps, there has been a drastic cut in the quality of paper and paperboard. To illustrate, one manufacturer refers to the stock now being used by him for corrugated containers as "Bogus-Bogus." Similar reductions in quality due to the extensive use of waste, now have been put into effect for most products produced by the paper mills.

A return to known standards of quality which will permit us to forecast results will be welcome and will relieve the packaging industry of the severe hardship now imposed upon it, due to these substandard materials.

Laminations and flexible films—Great strides have been made in applying laminated stocks and flexible films in packaging, especially for the protection of equipment and food for our Armed Forces. This progress has been accomplished despite the fact that very few new materials have been developed during the war period. Most of the improvements that were made were the result of changed thinking and the combination of known materials by means of present or new laminating agents or coatings.

Flexible films are outstanding in their use not only because of the protection they offer the product, but also because they give it an appearance of quality. When printed on the reverse side exceptional results can be obtained.

Any quality of printing or degree of moisture-vapor or flavor protection can be obtained by means of flexible films or laminations of films, paper and metallic foils.

This revised method of thinking and the new knowledge gained as to the application of existing materials will have a definite application in the postwar period. Look for its extended use.

Glass containers—Great appreciation is due the glass industry in its effort to produce the great tonnage of glass containers necessary to fill the gaps made by the loss of metal containers for civilian use. During this emergency, the consumer has accepted glass in place of metal and there will be more demand for glass in the postwar period, due to eye appeal.

The glass industry has been making extensive laboratory tests on better containers. The biggest trend in these developments is toward lighter-weight glass containers accomplished by designs which permit a uniform control of thickness of glass, thus obtaining a container as strong as the old heavy-weight glass. A great savings in weight will be obtained as there will be a reduction in weight, on some containers, of as much as 33 1/3 per cent. Glass containers must be well designed not only from appearance viewpoint but from the practical viewpoint of the consumer.

Plastic containers have been considered to take the place of glass but due to cost and also moisture, flavor and odor protection, there is a good deal of improvement yet to be made.

Closure materials: cork, rubber, wood, paper, metal, plastic—The war has given the packaging industry a wonderful opportunity for being "in the know" on the various closures used.

Closures must be considered according to the following standards:

1. Protection of product
2. Sales appeal
3. Convenience of consumer use
4. Durability
5. Economy

Metal closures with the proper liners and lacquers are generally accepted as the number one protection of the product whether it be a standard G.C.A. thread finish, a lug finish, crown finish, or a tailor-made finish similar to the Alco seal. Cork or rubber closures should only be used when products demand it. Plastic closures may be used for the appearance or beauty of the package, but should only be used in the small millimeter bracket. Paper caps have been useful as a substitute during the war emergency but should be eliminated from containers as soon as possible. Paper caps are practical only on such containers as milk where there is daily consumption and large reserve of liquid available for evaporation loss. Wood caps have been a poor substitute, due to warpage, cost and inability to obtain standard raw material. Liners are most important in the protection of the product. The manufacturer's laboratory has a big part to play in adapting the proper liner to the product.

The closure as an important part of the package must have an eye appeal, whether the product be food, shoe polish or cosmetics. Plastics have an important part to play in eye appeal. Postwar plastics will come in large variety from which the proper quality and color may be selected. Metal caps can be dressed up by printing and color so as to be accepted on any package.

Closures should be easy to open—one that sticks may cause the loss of a customer. Some closures may require a removing device, such as a bottle opener, therefore, the cap must be removable by a recognized device. Closures must be designed so that they can be opened even with a slippery hand. In the drug line, many closures incorporate applicators for consumer convenience.

Closures must be protected by a finish or constructed from materials which are resistant to rust, corrosion or warpage.

Most closures are economical but the manufacturer must consider the cost of the closure for his particular product. It is profitable to obtain an outstanding closure if the product warrants it.

Metal foils—Metal foils have played a most important part in the wartime packaging and the results obtained in shipments to all parts of the world are outstanding. In this field of packaging materials, it is not new materials but new or extended use that is important.

There are many uses for metal foil which have not been fully developed to date. Outstanding in its characteristics are moisture and flavor protection. These particular characteristics are not frequently found in any one packaging medium,

generally requiring the use of two or more materials combined.

Metal foils not only fill a necessary place in protective packaging but they also permit high quality printing to be used for decorative purposes. The present trend in design is to use the natural color of the foil for highlights or emphasis in the art work rather than the general past practice of using the foil as the background of the package. We can expect an expanded use of foils in the postwar period for inner packings, outside wrappings or laminations.

Metal containers—The metal container industry has done an excellent job in our wartime packaging. Metal is required by a great many products, especially foods, and stands up well when roughly handled, as in shipping.

The use of metal containers for certain civilian uses has been severely curtailed by the Government. In order to keep many products on the market, there has been a mad scramble among packaging men to find substitutes ranging all the way from molded pulp fibres to plastics. In some cases excellent results have been accomplished and many of these packages will live even when the free use of metal returns. However, in most cases metal is still preferred when one is confronted with problems such as moisture-vapor retention, flavor retention, maintenance of size, warping and many others.

With the increased availability of certain metals, alloys and coatings not formerly used extensively in the manufacture of metal containers, we can expect their application in this packaging field. For example, aluminum was not used extensively in the past for this purpose, despite its many desirable characteristics including lightness. Also, it is possible to extrude the smaller containers rather than manufacture them in the usual manner.

Collapsible tubes—No single item of packaging has experienced as many changes as collapsible tubes and still maintained essentially the same outward appearance and use characteristics. Many products, before the war, were placed in collapsible tubes made of tin and decorated with base coats, inks and lacquer. These tubes could endure distribution to any part of the world and long periods of storage under the most unfavorable conditions without undue deterioration in appearance or in content.

Since that time, the tin content of the tube has been reduced to not more than 3% for certain products while tubes for other products are permitted to use no tsn. These restrictions, where tin is permitted, have led to many combinations for the slugs used in making the tubes, ranging from pure tin coatings on lead through tin alloy coatings on lead to an alloy where the tin is distributed throughout the lead in the entire slug. Where tin is not permitted, the slug may be made of lead or a lead alloy. These slugs can be run on the same machines that were formerly used for producing tin tubes.

These changes in the slugs and restrictions on ingredients used in decorating the tubes have introduced many new manufacturing problems. The recent trend to eliminate lacquer on the outside, in order to conserve labor, has not helped the overall problem.

At present some aluminum tubes are being used. These tubes require additional equipment for annealing and they cannot be produced on those presses designed for the tin tubes. These aluminum tubes are giving satisfactory service.

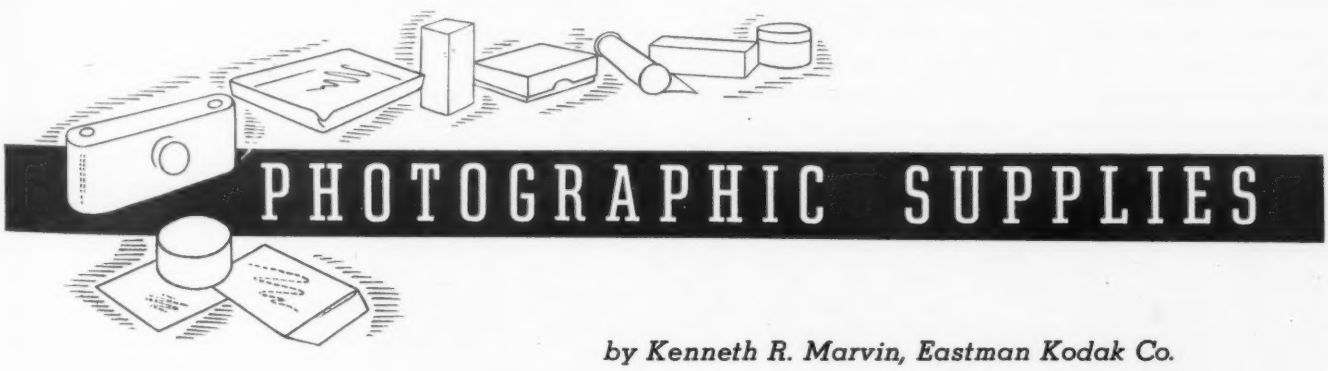
Many substitutes for collapsible tubes have been developed including side walls made of paper, plastic, metal foil and various combinations or laminations. Many of them have been subjected to extended tests and some have been consumer tested or placed on sale in test towns. It is entirely within reason to believe that some form of substitute tube may soon be on the market, but, to the best of my knowledge, none is now being offered for sale.

In the postwar period, we expect a general return to the use of tin and aluminum collapsible tubes. Lead tubes are not an innovation, for they were in use fifty years ago and during the prewar period amounted to some 5% of the total.

Packaging is a complicated procedure and if we accept the obvious solutions we can expect trouble. A proper package is not developed all at one time but is the result of a series of gradual improvements. Test, test and test again seems to be the proper approach.

We are always interested in new ideas, materials and methods and we are willing to spend the necessary time, effort and money in order to determine the application to our products. If one out of every one hundred is adaptable to our use, we feel that we are exceptionally fortunate.

With the return of prewar conditions, every effort will be expended to improve existing or prewar packages rather than to return generally to the package formerly used.



PHOTOGRAPHIC SUPPLIES

by Kenneth R. Marvin, Eastman Kodak Co.

What will the user of packaging materials choose when selection is again possible? The wartime period of shortages, substitutions and government specifications has resulted in the development of Saran, V-1, X-crepe, A-12 and A-50, stripcoat and many other packaging materials. They have proved valuable, many of them unique, in delivering the goods in a usable condition. If we use a well-worn expression, "American ingenuity" has accomplished great things in handling this extremely difficult job. However, in looking ahead to the time when shortages and substitutes will be an experience of the past, let us consider the qualifications and the limitations of the several groups of materials used for packaging products. Are these "new" materials going to remain? Are the "old" materials going to return?

In making an analysis such as this, two things must be kept in mind.

1. The packaging of goods for the peacetime market will be highly competitive and for this reason the cost of packag-

ing will have a considerable bearing on the selection of packaging materials, equipment and methods.

2. Probably only in rare instances will packaging be required to withstand the rigorous conditions demanded of it during wartime. Rather, there will be considerably more emphasis placed on the appearance of the package, how it will merchandise, what convenience it offers the consumer.

Assuredly the packaging of the future must protect the product to a much higher degree than prior to the war. But no longer will this characteristic suffice in itself. This feature will have to be built into a package which will have all the outward beauty and character so necessary to demand the attention of the critical purchaser in a highly selective and competitive market.

I should say that this is going to pose a problem for the package material supplier and the package fabricator. For this reason I believe many of the old materials will come back into use. In many instances they will be combined with the highly desirable characteristics of those new materials which have done such an excellent job of protective packaging.

Paper and paperboard products—Paper and paperboard products are among the few materials that have been more available during the entire period of scarcity. These products cannot be classified as new although there are certainly many new applications for their use. Probably the ultimate substitute for many package users has been the paper bag, box, carton, can, tube, etc. Some of these substitute packages will undoubtedly remain when other materials are again available. Paper has certain characteristics which are desirable. The flexibility of paper offers many possibilities for use which other materials do not allow. Cost will always be an important factor in its favor. Then, too it is assured that there will be a great improvement in the quality of paper and paperboard products. They will be offered with better finishes, higher strength and better colors. Improvement in quality will increase the use of a material which will always find extensive application throughout the packaging field. One example of a new application which is likely to have increased use in postwar packaging is the solid fibre and corrugated V-board shipping case. This appears to offer good possibilities, as a shipping container, for export shipment because of its highly protective qualities, its comparatively light weight and lower cubic displacement.

Laminations and combinations of paper and other flexible films—Laminations and combinations of paper and other flexible materials have seen a tremendous use as a means of protective packaging during the war. Although by no means unknown prior to the war, these combinations were relatively few and were used largely in a decorative way. Further development should be expected in this field which will combine the highly protective characteristics with attractive appearance. For example, if the proved characteristics of the well-known X-crepe pressure seal bag can be dressed up for the civilian market there seem to be many potentialities for its continued use.

Glass containers—There will always be many applications in which glass packages are not only preferable but absolutely essential. However, the factors of excess weight and high breakage are objectionable. These two important characteristics of glass will undoubtedly compel many users to revert to metal packages as soon as they become available. At a recent meeting someone said, "Why not an unbreakable bottle?" Well, why not, and at the same time if the weight can be further reduced many new users of glass would not quickly change back to the former "tin can." It can be pretty well agreed that the well-sealed (unbroken) glass package gives about the ultimate in protection, and there are very few products which are not compatible with glass.

The foregoing comment on the superiority of the glass package for certain products from a protective standpoint puts a lot of responsibility on the closure.

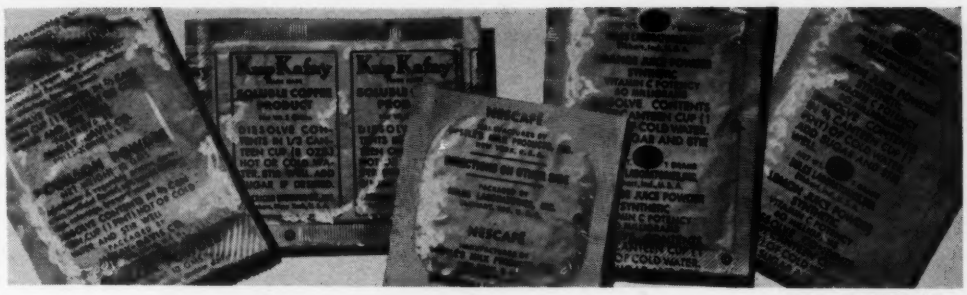
Closure materials—Closures made from metal with cork or rubber liners have been used widely in the past and will undoubtedly be used extensively when these materials are again available. Plastic closures which retain their uniformity and do not crack under strain or break upon dropping are good. Wood and paper closures, because of their lack of stability, are the least satisfactory. Screw closures are more positive and easier to reseal than a press fit for friction-plug type closure. Closures on many packages should be improved in both appearance and utility. They should be so designed and finished that they do not readily collect dust and dirt, nor should they be subject to corrosive action of the contents of the package. They should be readily removable and reclosable to a degree which will ensure as nearly as possible the original seal produced by the manufacturer.

Metal foils—Metal foil is an excellent packaging material both from the standpoint of protection and decoration. The promised lighter-weight foils free of pinholes will have widespread application. Thermoplastic coating on foil provides efficient means of fabricating a package of high protective quality. Laminations of foil to transparent sheeting or paper adds strength and good printing surface. This makes possible the use of a very light-weight foil resulting in an eco-



In anticipation of postwar merchandising, Ansco recently presented a complete redesign of its packages to provide a closer family tie-up and better identification for various types of films.

From the standpoint of protection and decoration, laminations of metal foils and transparent films will have wide application for small unit packs like soluble coffee and lemon powders, now included in soldiers' rations.



PHOTO, THE DOBECKMUN CO.

nomical package with a high degree of protection and an attractive appearance. This combination of materials lends itself readily to many types of automatic packaging. A successful application for such material is the packaging of small amounts of hygroscopic powders in a packet fabricated of thermoplastic coated foil laminated to printed transparent sheeting.

Metal containers—From the standpoint of economy, ease of handling on either manual or automatic packaging lines, high degree of protection to product, good appearance and convenience of use, it is difficult to better the metal container as a package. Everyone will agree that as soon as possible metal will again be used extensively as a packaging material. Metal containers are of considerably lighter weight than glass packages of a like capacity and they are not subject to breakage. Therefore the problem of shipping is simplified and less expensive. Certain improvements in metal containers may be sought in the postwar period. A better closure to replace the friction top will give better protection and greater convenience. There is a need for inner coatings which will offer a wider range of use of metal containers for certain liquid products, which react undesirably on the present standard coatings. Aluminum containers were in use to some extent prior to the war. This was particularly true in the case of the smaller extruded tube-type packages. Of course everyone is familiar with the aluminum beer barrel which was introduced just prior to the war. Here it appears is a definite possibility for extensive development in the metal container field. Light weight will be a decided factor in favor of aluminum particularly on large size packages for liquids. Export shipment and particularly air shipment will put a premium on light-weight packages. If the cost of aluminum is reduced, as is expected, this material may offer some of the more common prewar metal containers keen competition.

New substitute coatings and lining materials for metal containers have proved highly satisfactory from many standpoints. However, there appears to be a need which has not been entirely answered. That is the development of a coating other than tin which will lend itself to soldering. In a recent article* mention was made of the fact that certain of the metal containers captured from the Germans showed that they have been electrically welding the seams of some containers. Whether or not this offers any possibility in the fabrication of metal containers is for the can manufacturers to decide. Certainly our recent experience resulting from the scarcity of tin should have stimulated investigations which will result in interesting developments.

Collapsible tubes and substitutes—Unless either a plastics manufacturer or some other material fabricator contributes an outstanding development, it would seem certain that the metal collapsible tube will again come into its own. The substitute packages for collapsible metal tubes, other than the plastic tube, have been either paper, glass, or paper and metal combinations. In some cases the substitution of paper or paper and metal packages for the collapsible tubes has necessitated a change in the form of the product. The most notable example is the change from tooth paste in a collapsible tube to tooth powder in a paper package. Unless the public likes powder better than paste, a rapid change back to the collapsible tube seems inevitable. In the case of a change from the collapsible tube to glass, as for example, packages of shaving cream, oil colors, etc., no change was made in the form of the product. However, from the standpoint of convenience of use there seems no reason to believe the collapsible tube will not again be offered.

Conclusion—In conclusion it can be said there are a number of factors which determine the use of any packaging material. In forecasting which materials will have continued use in the postwar period these factors must of necessity be taken into consideration. For example, the type of product will affect greatly consideration given to various materials to be used in packaging that product. Such factors as the physical shape, size and weight of the product, the amount and kind of protection required and the form (liquid, powder or solid) of the product have an important part in the preliminary consideration of what class of packaging materials can be used. Then there are the all important production considerations such as whether the packaging is to be performed manually, semi-mechanically or on a fully automatic packaging line. Also, there are such other production problems as the working conditions under which the operation is to be performed. Packaging products under conditions of total darkness is perhaps one of the extreme examples of where production requirements have an important bearing on the selection of packaging material and equipment. The humidity and temperature requirements for the product being packaged are more common considerations. Finally there is the very important question of what the packaged product will be required to withstand to reach the ultimate consumer. Here careful consideration must be given to shipping methods, storage conditions, merchandising requirements and consumer convenience.

Each packager will not only give careful thought to the above-mentioned factors in determining whether to revert to materials which have been scarce or to continue to use some of the new materials, but will also be influenced in his decision by the knowledge and experience he has gained in packaging problems during the war. This knowledge and experience has been widespread throughout the industry and will be reflected in the postwar period by many innovations in the packaging of products for civilian peacetime markets. Not only has the emphasis placed on the importance of packaging during the war been apparent to those engaged in this work, the general public has been educated to look critically upon the way in which a product is packaged. Increased competition in many fields will require packages which will offer the consumer the highest degree of protection to the product, convenience of use and attractiveness of design.

* "German Cans," MODERN PACKAGING, 18 (October 1944), p. 126.

Labels on glass . . . a design analysis

Many a family of packages is hailed as well designed when it first reaches the market and is later seen to deteriorate step by step in the course of subsequent printing runs. With every change in contents, ingredients and labeling regulations, words are added and altered by advertising personnel or printers who are typographically inept or indifferent. As a result, the packages gradually lose their original balance and appeal.

In developing new labels for several groups of the food products of S & W Fine Foods, Inc., San Francisco, Designer Walter Landor's first consideration was to anticipate eventualities such as these and to allow for them in the framework of the original key design.

In addition to reproduction drawings, the designer presented to the printing house an all-inclusive yet concise typographic formula making provision for a variety of "special cases" which might come up years after the design job was finished.

A case in point is the "Cocktail Cherries" label (Fig. 6), which incorporates about 40 words on a label less than 2 in. square. On most labels of comparable size, such wordiness has wreaked considerable havoc. But it will be seen that it does not in the least handicap the airy, crisp and balanced quality of this label, nor crowd its principal message.

Projecting his anticipation of label requirements into the second stage, the designer found that the majority of packers today still seem to ignore the question of what the dealer may do to the package when it gets in his hands. About half the products sold from self-service markets, a survey revealed, have price markings scrawled across the face of the package in a most unsightly manner and a label that may otherwise have been well balanced and appealing has lost its appearance value.

One popular approach to this problem has been to leave a blank white block somewhere on the package to invite the dealer's marking pencil. In the case of paper cartons, this

PHOTOS BY DEAN STONE

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1—Proportions of specialty label are such that it "fits" any shape or size of container; it runs through any labeling machine. **2**—*Streamlined label is standard for all glass-packed fruits and vegetables. Dark green and cherry-red colors used throughout the line are carefully selected to harmonize with wide variety of products. Note effective use of white for added display value.*

white block may be placed on the top of the package where it will not interfere too seriously with appearance; in the case of a small label on a glass container, however, it is hard to handle without destroying the design.

In planning the spot label for S & W specialties in glass (Figs. 1, 3 and 6), the designer made no obvious price provision—still hoping that the dealer would make a small and unobtrusive mark on the lid. However, by leaving a blank space in the upper left-hand corner of the label, he dropped the subtle suggestion that if it is necessary to write on the label, that is the place for it. It works surprisingly well. Most dealers are not oblivious to good label design and if there is a blank space available for marking they will automatically use it. It is only the crowded and cluttered label that invites haphazard marking.

Finally, projecting the package into its third merchandising phase, the designer is much concerned with the "appetite appeal" of the individual package unit when it is on its own in the home. This is an important consideration which is still overlooked by many merchandisers, even though they have learned to require that their package have strong display value and shelf appeal.

"We are not satisfied simply to move our client's product off the dealer's shelf," says Mr. Landor. "We try to speed its movement off the pantry shelf as well. We believe that by making the package appeal to the visual sense of the consumer in such a way as to stimulate his or her appetite, we are not only helping our client to make another sale, but we are adding anticipated enjoyment to actual enjoyment.

"Our aim is simple: to make the consumer's mouth water."

The color illustrations show how this aim has been accomplished—not only by revealing as much of the product as possible through the transparent container, but also in the label through the use of attractive colors, pleasing shapes and a simple, harmonious arrangement of design elements.

The label illustrated in Fig. 2 was developed recently when S & W began to pack in glass a number of fruits and vegetables which previously had been marketed in tin cans. With the exception of product identification and directions, it is standard for all the glass-packed products in this line, including such items as boysenberries, blackberries, whole peaches, red tart plums, cherries, hearts of artichoke and celery.

Since the content of fruit and vegetable jars is evident to the eye, the brand name S & W is made the dominating factor, standing out aggressively in white on dark green. However, in order not to arrest the horizontal "flow" of the label, the "S & W" is bound into it gracefully, rather like a wrist watch into its strap.

Main product description appears in a deep cherry-red on white, set in a Lydian type which seems to combine the pure qualities of sans serif type with a restrained richness suggestive of fine foods.

Secondary information is relegated to inscriptions in light green on dark green bands at left and right of the trade mark and in dark green on a light green band at the label's base.

Realizing that the extent of secondary information preceding and following the main content description varies greatly from product to product and sometimes from one season's pack to another's, it was considered important that nothing be left to chance or to the printer's whim. Ample space is provided by these bands for accommodating words of any length and number, readably and logically related to the main contents' description, without becoming conspicuous to the detriment of the over-all label appearance.

Focus on brand name and contents description at all times remains undisturbed by supplemental typographic matter. This is considerable of an accomplishment, particularly in view of the label's limited height.

Clear-cut lines and carefully balanced color contrasts help this label to enhance the quality look of the jar's contents.

The new label for glass-packed specialty items, as exemplified by Fig. 1, is a redesign of an existing label previously used on these identical products—catsup, vinegar, peanut

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Walter Landor, who designed the labels shown on these pages, was educated in London, Paris and Munich and has practiced industrial design in England and the United States. In addition to product development and package styling, he has designed stores, restaurants and World's Fair exhibits, and has been active in design development in the plastics industry.



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butter, grape juice, extracts, olives, olive oil, cocktail cherries, pickles, marmalade and a complete range of jams, jellies and preserves.

This standard label, which eventually may cover as many as 50 products, has the S & W insignia in white on a dark green circle placed against a light yellow-green background. The graceful white border at left flows into a center white strip leading the eye directly to the principal product identification, which is printed in deep cherry-red. Ingredients and other compulsory information are skilfully organized in a minimum of space. The two necessary but bothersome phrases "Reg. U. S. Pat. Off." and "Made in U. S. A." are inconspicuously disposed of; the former in small red type on the dark green circle, so that it is apparent only on close examination, and the latter in reverse white in a vertical strip in the lower right-hand corner, where it adds a pleasing design element.

This label is interesting because it incorporates—in one universal design, shape and color scheme—so many of the features important to production and merchandising. It might almost be called the answer to a food packer's prayer, because:

It fits any shape glass container—cylindrical or tapered jars, squatty bottles or tall bottles.

It provides good contrast against the variety of colors and textures of all products packed.

It has a distinctive shape of its own, but will run through any labeling machine.

It successfully spotlights the description of the contents without minimizing the prominence of the brand name.

It creates appetite appeal on pantry shelf and dining table for foods as far apart in taste as sour pickles and strawberry preserves.

It gives the old established trademark new life by effectively integrating it with a modern setting.

It expresses "quality food," "packed under modern conditions," "manufactured by trustworthy, established company."

It simplifies label inventory: blanks can be overprinted with contents descriptions of any length and with ingredients of any complexity—without spoiling the spacious,

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3—This new label, standard for condiments and specialty items, has a clean, uncluttered look. It is intended to create "appetite appeal" both in the store and on the table. **4**—*Unique "frontless" coffee-jar label brings name in view no matter how jar is placed on shelf. "Drip" and "Regular" are same except for center color strip.* **5**—*Carton label was adapted from jar; same basic design.*

clear-cut appearance of the label (the designer's typographic instructions being simple enough to be foolproof).

It provides a blank space enabling the dealer to mark his prices neatly—instead of forcing him to write crudely across vital parts of the label.

S & W coffee was originally packed in cans; later it went into glass and when the metal shortage affected even the supply of metal closures, it went into cartons. At present it is being marketed in both glass and cartons.

The glass coffee jar (Fig. 4) attracted considerable attention when it was introduced two years ago because of unusual features of label design. The label has a "front-less" plan which assures that one or two full faces will be exposed no matter how it is placed on the shelf or from what angle it is viewed. The labels are identical in design for the two types of coffee grinds—drip and regular—but instant distinction is achieved through contrasting colors for the center strips. The identity strip for the regular grind has a light tan background with the words "Regular Grind" appearing in white on royal blue oval spots. The drip grind affords direct and pleasing contrast with a light yellow-green background and orange "Drip" spots. The balance of both labels is standard, in the same dark green and white used for other S & W labels.

When it became necessary to design a paper carton label, the same basic design and color scheme was adapted to the proportions of the carton, as shown in the color plate, Fig. 8. The same strong color distinction as used on the jar label center strips appears in the center panel of the carton, to distinguish the two grinds.

The result is a strikingly uniform package appearance, whether the coffee appears in glass or carton. Experience has shown that because of the vividly contrasting center strips, the two coffee grinds may be intermingled in display stacks with little possibility of error in customer selection.

Fig. 8 also shows the pleasing effect obtained with mass displays of the carton, due both to design and colors.

Also helping to obtain for these coffees favored mass display position is the color and design treatment of the shipping cartons (Fig. 7). Stacks of cartons are frequently used as a base for display of individual cartons or jars in West Coast super markets. The same basic design (*Continued on page 146*)

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8



6—Close-up shows how 40 words are used on a 2-in. label without crowding. Blank space at upper left invites price marking where it will least disturb design. 7—Coffee label colors and grind distinction are carried through to shipping containers, printed in full color. 8—In coffee cartons, note sharp distinction between grinds by color only, especially effective in mass display.





PHOTO 1, COURTESY U. S. RUBBER CO.

1 2

1—A bale of synthetic rubber (GRS)—this is what it looks like. 2—Standard package is a three-ply multiwall bag of the following construction: one inside ply 60-lb. base-coated clay or talc that strips clean and does not adhere to the rubber; one 50-lb. kraft sheet, and an outside 80-lb. creped sheet whose rough surface prevents slipping when rubber is stacked. Cold flow is controlled by dimensions of the bag.

Synthetic rubber . . . big job for multiwall bags

By picture or travel nearly everyone is familiar with the brilliantly-lighted-at-night tower and tank structures that produce the chemicals for synthetic rubber. Suppose, however, that tomorrow morning you were to receive a shipment of synthetic rubber. This is what you would get: neat multiwall bag packages in each of which would be a bale or block of GRS weighing 75 lbs. and about the size of an average suitcase—14 by 7 by 28 in.

Today, a three-ply multiwall bag of certain specified structure is the standard package for GRS synthetic rubber adopted by the Rubber Reserve after exhaustive tests that began immediately after Pearl Harbor when it was evident that American industry would have to make its own rubber.

The packaging story is one of the most important adjuncts to the synthetic rubber program because the rubber had to be delivered in convenient units to all parts of this country and some to Lend-Lease countries. Not only did the package have to be created, but the form of the rubber block for convenient handling had to be determined. The bale of the size and weight mentioned above was selected as the proper unit that could be carried easily by one man. The package, however, involved complex problems, as follows:

1. Synthetic rubber (GRS) needed a package that would protect the product from contamination by dirt, dust or cinders that would interfere with purity in processing.
2. Synthetic rubber is tacky and must be covered with a package material that will strip clean and not adhere to the rubber.
3. Synthetic rubber also has a certain amount of cold flow—that is, it changes its form under pressure when stacked, due to temperature conditions.
4. The package had to be within a certain price range and available in considerable volume on short notice.

At first, the Rubber Reserve tried corrugated cartons with clay or talc coating inside the box. These were efficient in that they prevented contamination. The coating kept the carton from adhering to the talc-dusted rubber, but the containers were scarce, comparatively expensive and had a tendency to burst in stacking, exposing the rubber to contamination.

In their search for packages, the Rubber Reserve had heard of the heavy-duty multiwall bags developed for hot liquid asphalt and they called a leading bag supplier into conference with their packaging committee. Such bags had an inner ply provided with a clay or talc base coating combined with casein adhesives as a binding agent and glycerine plasticizer to keep it flexible.

This coating, it was believed, would solve the problem of

adhesion. Sample bags of proper size—14½ by 7½ by 37 in.—were sent for tests. They were comprised of five plies—an inside ply of clay or talc coated 50-lb. basis weight kraft, three plies of 40-lb. natural kraft and one ply of 70-lb. natural kraft outside. After initial failures, the coating formula, using the same basic ingredients, was changed to eliminate entirely the transfer of the coating to the rubber, which was an objectionable condition. The changed formula provided a tighter bond of the coating to the paper and less transfer to the rubber bale.

A second serious problem was concerned with stacking. At first it was found that bags had a tendency to slip and fall over. The remedy was a replacement of the outer kraft sheet with a creped sheet, which imparted a rough outer surface and with a study of stacking technique eliminated the slipping.

To prevent cold flow, the bag size was reduced to 14¼ by 7¼ by 36 in. so that the bale did not have a chance to change its shape so radically within the smaller bag area.

In the beginning the bags were loaded by hand, but after the adoption of the smaller bag, it was necessary to develop a filling device so there could be no injury to the bag during loading. A special loader was developed by means of which the bales of rubber move horizontally on a conveyor about a fourth of the way through a filling spout into the bag. The bag and its contents are then raised to a vertical position which allows the bale to fall slowly down into the bag. Excess talc used to aid in preventing adhesion is removed by suction from above the baler.

The above changes in the original bag resulted in a package which met all the demands for the successful loading, handling, shipping and storage of synthetic rubber (GRS).

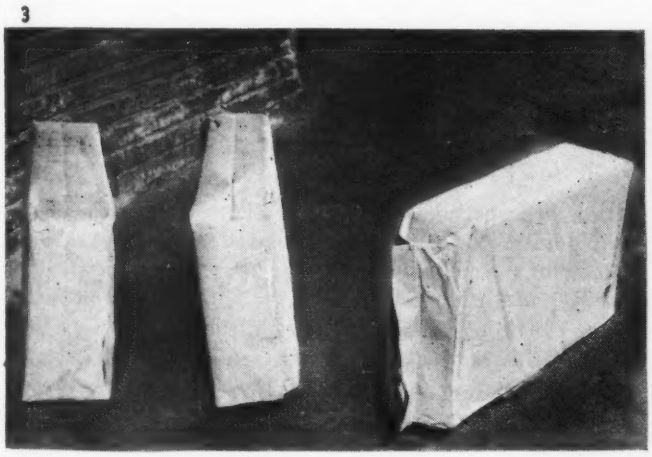
With Rubber Reserve officials now certain they had the ideal low cost package, they wrote and approved specifications on multiwall paper bags which became effective January 1, 1944. These specifications called for a four-ply bag composed of one 60-lb. base coated clay or talc, one 40-lb. kraft, one 50-lb. kraft and one 80-lb. crepe.

As pulp became more critical, two- and three-ply bags were tested for strength in handling and storage. In May 1944 at the conclusion of these extended tests, the three-ply bag—one 60-lb. base coated clay or talc, one 50-lb. kraft, one 80-lb. crepe—was adopted and is the bag used for all domestic shipments.

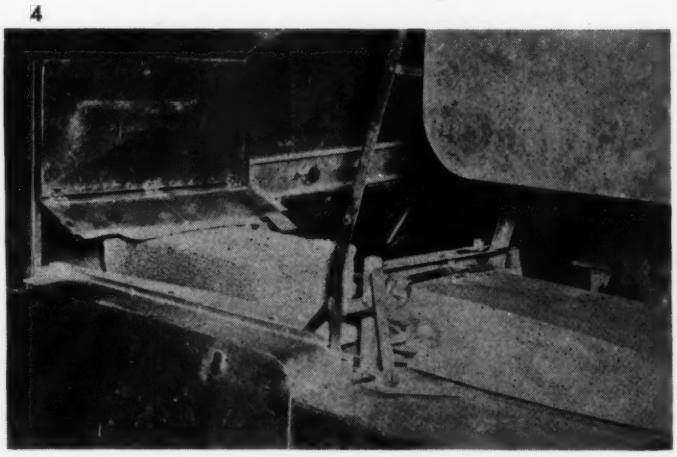
Moisture protection is no problem for domestic shipments, but for Lend-Lease export, where (*Continued on page 142*)

3—Bags may be closed with a diamond fold and sealed with gummed tape, or sewed. Sewing is now most generally accepted method of closing. 4—Talc-dusted rubber coming from dusting machine ready to be loaded into bag. 5—By means of loading device, bales of rubber move horizontally on conveyor about a fourth of way through filling spout into bag. Bag and contents are then raised to vertical position, allowing bale to slip into bag. 6—Multiwall bags of rubber stacked in freight car.

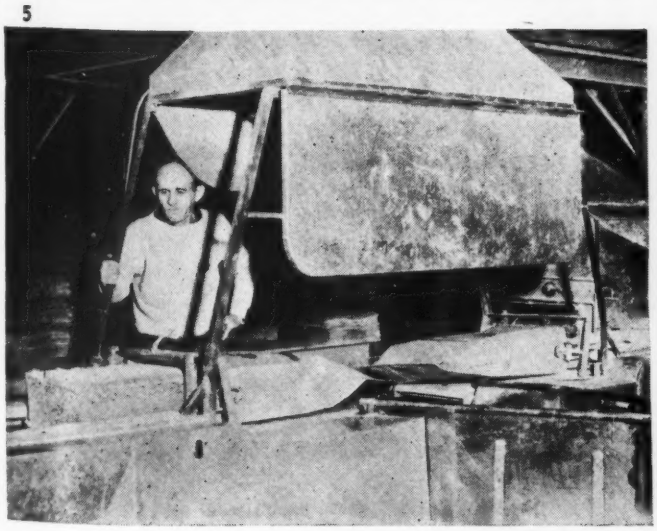
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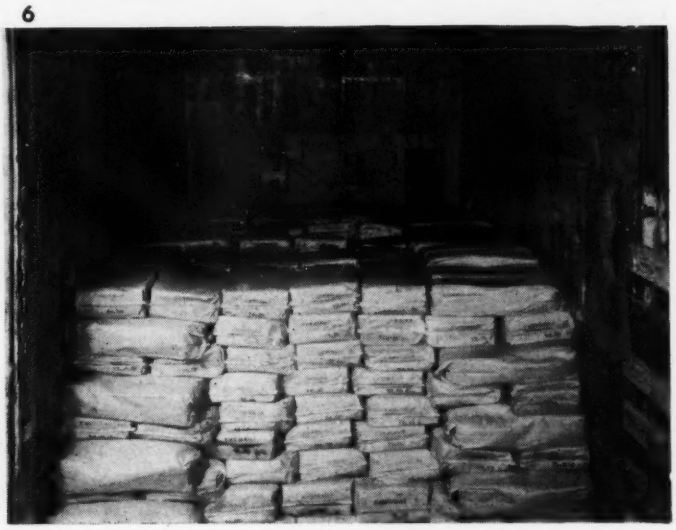
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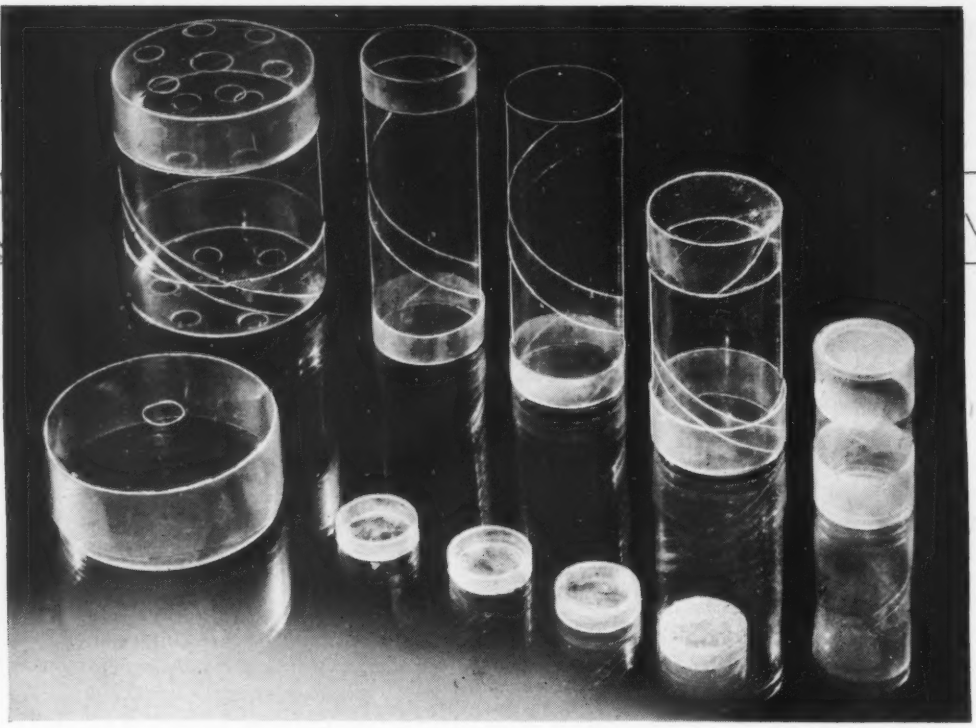


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1—Millions of spiral-wound cellulose nitrate ammunition components have been produced since the beginning of the war. Similar technique will be adapted to all types of rigid films for packaging applications when such materials are available.

Spiral containers . . . of transparent films

Transparent soda straws and spirally wound insulation tubing for electrical coils are grandparents of a container idea that will be a new factor in postwar plastic packaging.

Such spirally wound transparent containers are used widely in war work. They have been made by the millions as ammunition components. The Ordnance Dept. learned early in this war the value of transparent plastics in reducing the number of duds, because an empty container is spotted at once. In addition, smooth surfaces reduce the hazard of explosion because they do not cause sparks.

The Army Medical Dept. discovered the container possibilities of transparent spirally wound tubing when it was looking for a covering over a tiny glass iodine swab ampule that could be broken with thumb and forefinger inside the transparent covering without danger of injury from broken glass. In quite another field, spiral-wound transparent containers provide a tough, tamperproof, visibility container for carburetor parts. On life rafts, Very pistol cartridges, used as signal shells, are now sealed in these waterproof, transparent containers.

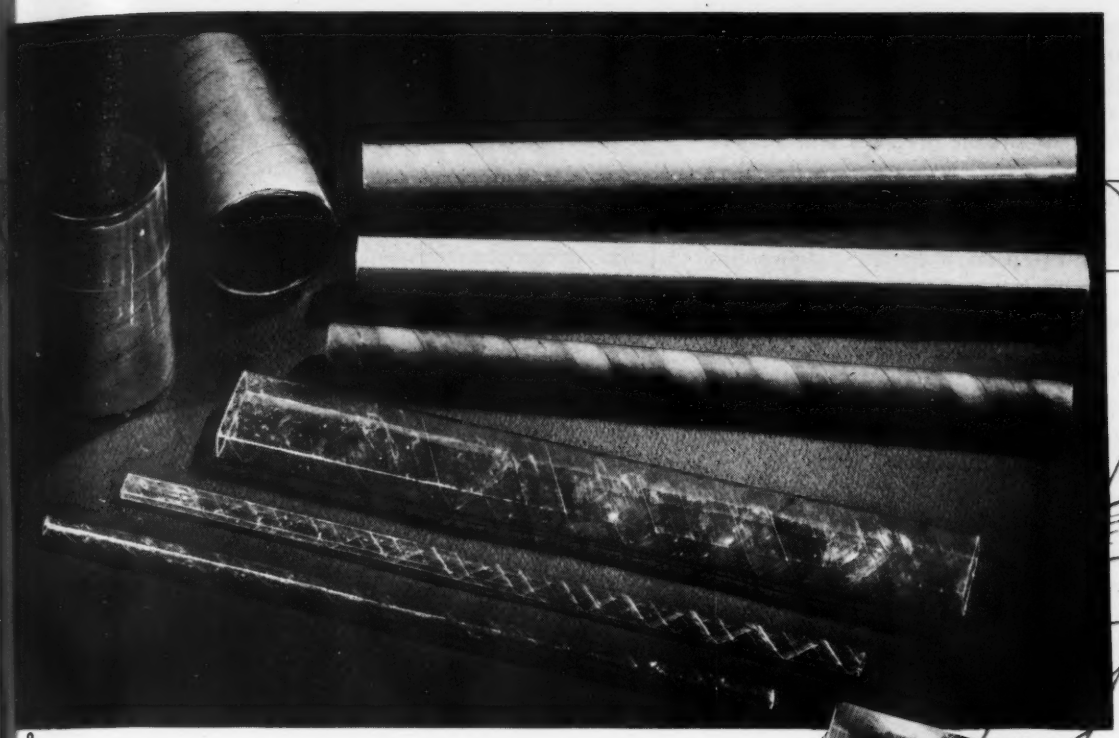
After the initial cost of materials, these containers can be produced at comparatively low cost. Other important advantages are their toughness and transparency. They can be produced at relatively high speeds and are not limited to cylindrical shapes, but may be made square, rectangular or oval, depending upon the shape of the mandrel used.

The containers for packaging are made from continuous strips of transparent film or foil on standard spiral winding equipment. They have been comprised of from one to six plies, but the number of plies may be increased and plies may be of different films—plastic, paper or metal foils, depending upon the protective requirements of the product to be packaged. The number of plies and their gauges determine the thickness and rigidity of the walls and also the strength of the containers.

It is reported that spiral winding imparts unusual strength to films. For example, two spirally wound strips of cellulose acetate 0.005 gauge are said to be stronger than one strip of 0.010 gauge. This strength and the resiliency of the acetate spirally wound structure is a very important advantage in the protection, for instance, of precision instruments when a container must be provided that will not be permanently dented, but will return, after pressure, to its original shape.

This tubing has been wound in diameters from $^1/_{16}$ in. to 3 in.; however, future development is not limited to that size range, but may be larger. Widths of the strips used for the spirals are selected in direct ratio to the diameter of the tubes so that the angle of the spiral remains relatively the same on all sizes of tubing.

The tubing is produced on spiral winding machines in continuous lengths, then cut to shorter lengths for handling, and further cut into container lengths. The spirally wound strips are held together by an adhesive which, in the case of cellulose acetate, is a solvent for the material and forms a secure



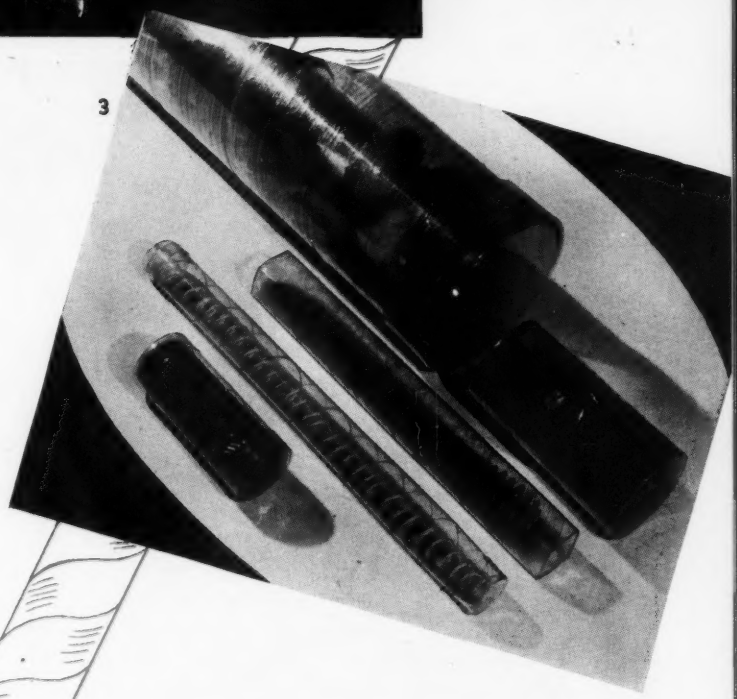
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bond. The solvent is automatically applied during the winding either on one edge or all over, depending on whether it is multi-ply or single ply. No heat is used in the process.

The process sounds simple, but the technique of handling the materials requires much experience to make a smooth-surfaced tube with good clarity. The soda straw manufacturers and one specializing in mailing tubes have had considerable experience. To develop the ammunition components, Celanese Plastics Corp., which makes the basic materials, was asked by the War Dept. to develop a pilot plant for spiral winding, but its work has been confined to cellulose nitrate ammunition components and the production will be dropped by the end of the war.

Precision Paper Tube Co., a leader in the field, said it spent four years on experimental work before a satisfactory spiral-wound container was made and still works for greater clarity.

An interesting feature is the variety of effects that may be obtained by the many types of tops, bottoms and closures that



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2—Spiral-wound tubing suitable for packaging has been made in diameters from 1/16 to 3 in. It may be square, rectangular or oval as well as round. At left is tamperproof container for carburetor part. Paper tubing inside adds strength. **3**—*Suggested postwar uses—a florist package for a rare flower, for metal parts, as a re-use toothbrush package.* **4**—*Army Medical Department uses tiny spiral-wound tube over glass ampule for iodine swab. May be crushed between thumb and finger without injury from broken glass.*

may be applied to these tubular containers. For example, the Bendix carburetor part container is a tamperproof package closed with spun-in disks. The container is supplied with one end in place. With a simple tool the other disk is spun in after the package is filled. For re-use purposes, ends may be rigid-drawn transparent caps, the bottom one cemented to the container and the top one loose so that it may be removed and replaced after each use. Containers with the spun-in ends may also be made in two parts, one telescoping into the other. Tolerances can be maintained to $^1/_{1,000}$th of an inch. Ends and closures may also be spun-in metal or paper disks. Friction closures of metal and paper may also be used.

Sometimes, to provide additional structural strength when visibility is unimportant, a spiral tube of paperboard is inserted within the transparent tube. Containers for metal parts have been made in this manner.

Effective color effects may also be obtained by winding two or more different-colored strips of transparent material or combining a transparent material with colored paper. The result is a candy stripe, which might be suitable in the cosmetic, confectionary or toy packaging fields. Spiral-wound transparent containers may also be printed in black or colors. The candy stripe can be made also by coloring the adhesive.

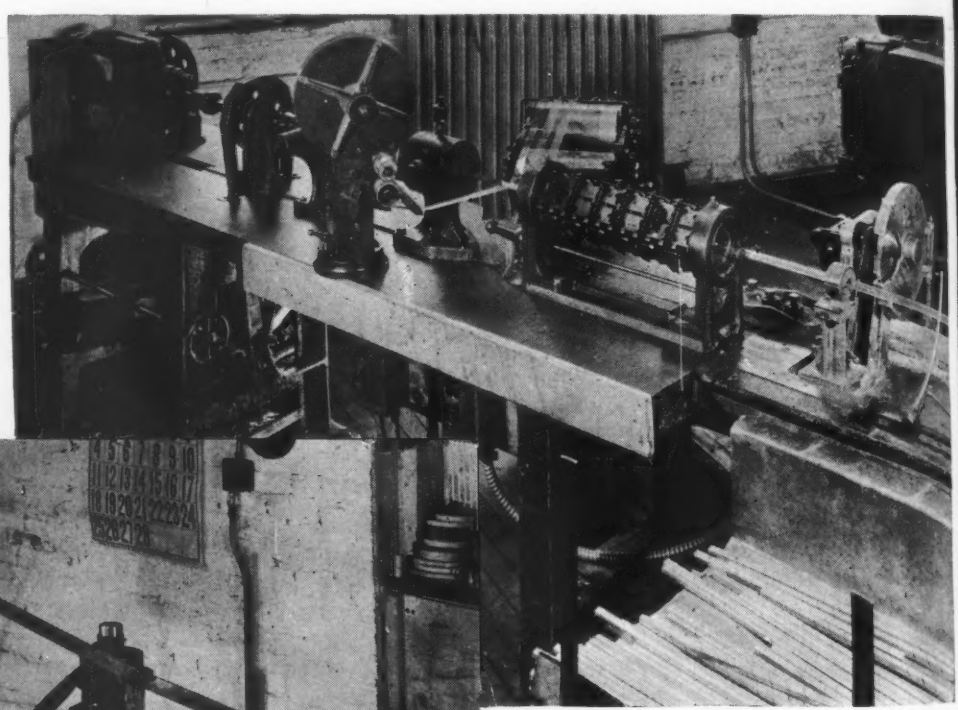
Made of cellulose acetate, the containers are waterproof and greaseproof, but not moistureproof, although they might be made so by introducing the proper materials and adhesives.

For the present, due to limitations on materials, spiral-wound transparent containers are ear-marked only for war contracts. Other than ammunition components, which are spiral wound of cellulose nitrate, most important uses are for metal parts, the Very pistol signal flares and for the iodine and mercurochrome capsule swabs in G.I. first-aid equipment.

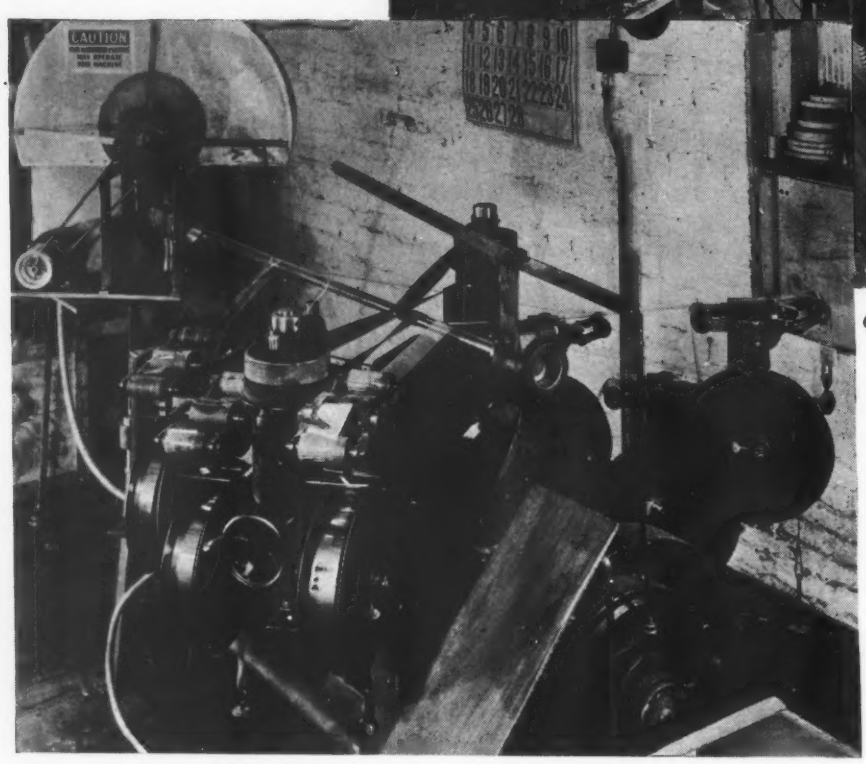
Even though spiral-wound transparent containers are not available for civilian orders at this time, they may be suggested to the many companies who are looking for something new. With a rectangular spiral-wound transparent tube, the toothbrush manufacturer, at comparatively low cost, could provide a new type of re-use container. These tubes might be used also by florists for gift packaging one rare flower. They have possibilities in the cutlery field where protection of edges is important. Their adaptability to both decorative and protective packaging offers unlimited possibilities for the stylist and designer of the packages of tomorrow.

CREDIT: *To Celanese Plastics Corp., New York; Precision Paper Tube Co., Chicago; and Stone Straw Co., Washington, D. C. for their assistance and photographs used in preparing this article.*

5



5—*Any transparent film may be handled on standard spiral winding equipment. Tubing is cut to suitable lengths for handling—then cut again to required container lengths.*



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6—*Another view of spiral winding equipment showing how strips of film are assembled in the machine. Technique of handling requires much experience to produce smooth-surfaced tube with good clarity.*



PACKAGE FROM HOME

. . . how does it look to Joe?

by William E. Pensyl, T/5, U. S. Army

When the Army takes an ad man, ships him to the Southwest Pacific and puts him to work in an Army Post Office it's only natural that he should have an unusually keen interest in packaging methods and their effectiveness in protecting merchandise through a long and very rough journey.

He sees the condition of packages that pass through subtropic and tropic postoffices. He sees the condition of his personal packages. He knows that a good package, with everything in near-perfect condition, is one of the best of morale builders and that a badly battered package, with spoiled contents, is worse than no package at all to a G.I.

He soon decides that even some firms that make a substantial business of shipping their products overseas—particularly among those that ship snacks and sweets—need a bit of briefing about the effects of hot, humid climate and the battering wear of long hauls on both their package and their products.

Shall we get down to cases? Let's watch what happens to a package that the Krunchy Kernels Shops, we'll say, ships to an APO in the islands. The name is fictitious; the facts are not.

Krunchy Kernels Shops advertise that they are prepared to ship their products anywhere in the world. They believe it; there is no intent to mislead the public. Here, in brief, is the log of the package's journey:

It travels 2,500 miles by rail and over 7,000 miles by water.

The mail bag in which it is shipped is packed with about 50 lbs. of assorted merchandise. It gets dumped on the loading platform, piled in a mail car, dropped on a dock, crammed into the hold of a rolling, pitching freighter.

It will be one of up to 10,000 bags in the shipment. It may be at the bottom of the pile and the Krunchy Kernels package may be at the bottom of the bottom bag.

Maybe the freighter will ship a little water in rough seas. In spite of all precautions, the package may become a trifle damp.

As the ship crosses the equator, temperature below decks will rise well above the 100 deg. mark. On the tropic island that is the final destination of the package, temperatures may be as high or only slightly lower. On most of the islands, the climate also will be humid.

Minimum time in transit for the package will be one month. If shipments of war materials with very high priority are heavy, transit time may stretch to two months—or longer.

Now this package from Krunchy Kernels Shops contains caramels, fudge, hard candy, salted nuts, Jordan almonds and popcorn, all packed in individual paper boxes. The shipper packs all the small boxes in a sturdy corrugated container and around it he wraps strong kraft paper.

It looks like a rugged, practical package—in the shipping room.

When the G.I. whom someone remembered opens the package at the other end of the trip, it looks like this:

The outer container is beaten soft and mashed a trifle at one corner—pretty fair condition. Some others in the shipment will be just sticky masses.

Inside, the caramels are in good shape, soft but still in their original individual wrappers and still quite tasty.

The fudge, for some unaccountable reason, also is in good condition.

The hard candy is almost a syrup—melted by the heat or the humidity. Candy makers should know the reason better than I.

The nuts are stale and rancid. You can smell them yards away. They are soggy and dark in color.

The Jordan almonds have a green tinge that looks suspiciously like mold. The colors of their candy coating have run and faded.

The popcorn is definitely damp. Its butter-and-salt dressing is strong and rank.

Because Yanks are inquisitive, the G.I. samples everything, then discards everything except the fudge and the caramels.

Out of a package that met the postal limit of "15 in. in length, and 36 in. in length and girth combined," he saves tidbits that could be shipped in a package six in. in length and 16 in. in length and girth combined. Out of almost five pounds of confections, he rescues (*Continued on page 140*)

No specifications protect the "package from home," although it is as important to the G.I. as bullets or bayonet. This article, written by a former member of the Pittsburgh agency of Ketchum, MacLeod & Grove, Inc., now in the Pacific, points out lessons that should be noted by every packager who is interested in maintaining consumer markets at home or abroad.



1



2

Trends *in commercial containers for frozen foods*

The most widely used package in the U. S. frozen fruit and vegetable industry today is the fibre container. Ranking second is the wooden barrel, while the tin can, greatly reduced in volume as a result of the war, is third.

The barrel, originally the number one package in the industry, still rates high in the fruit field and an increasing tonnage of frozen fruits is being put up in barrels. However, the percentage of the frozen fruit pack barreled is declining and when frozen vegetables are added, the ascendancy of the fibre package is clearly shown.

The major market for frozen fruits, as shown by packaging practices in the industry, is the re-manufacturer—the preserver, pie baker, ice cream maker, etc. The retail trade takes the second largest quantity and the institutional buyers rank third.

With frozen vegetables, however, packages of the institutional size are first in importance, followed by retail sizes, with the larger containers in third place.

These and other facts are set forth in a study of frozen fruit and vegetable packaging patterns just completed by the statistical department of *Western Canner and Packer*. Long-term trends in the business are revealed by Washington-Oregon pack figures going back to 1926, while the present situation is shown in reports by National Assn. of Frozen Food Packers for the years 1941–43.

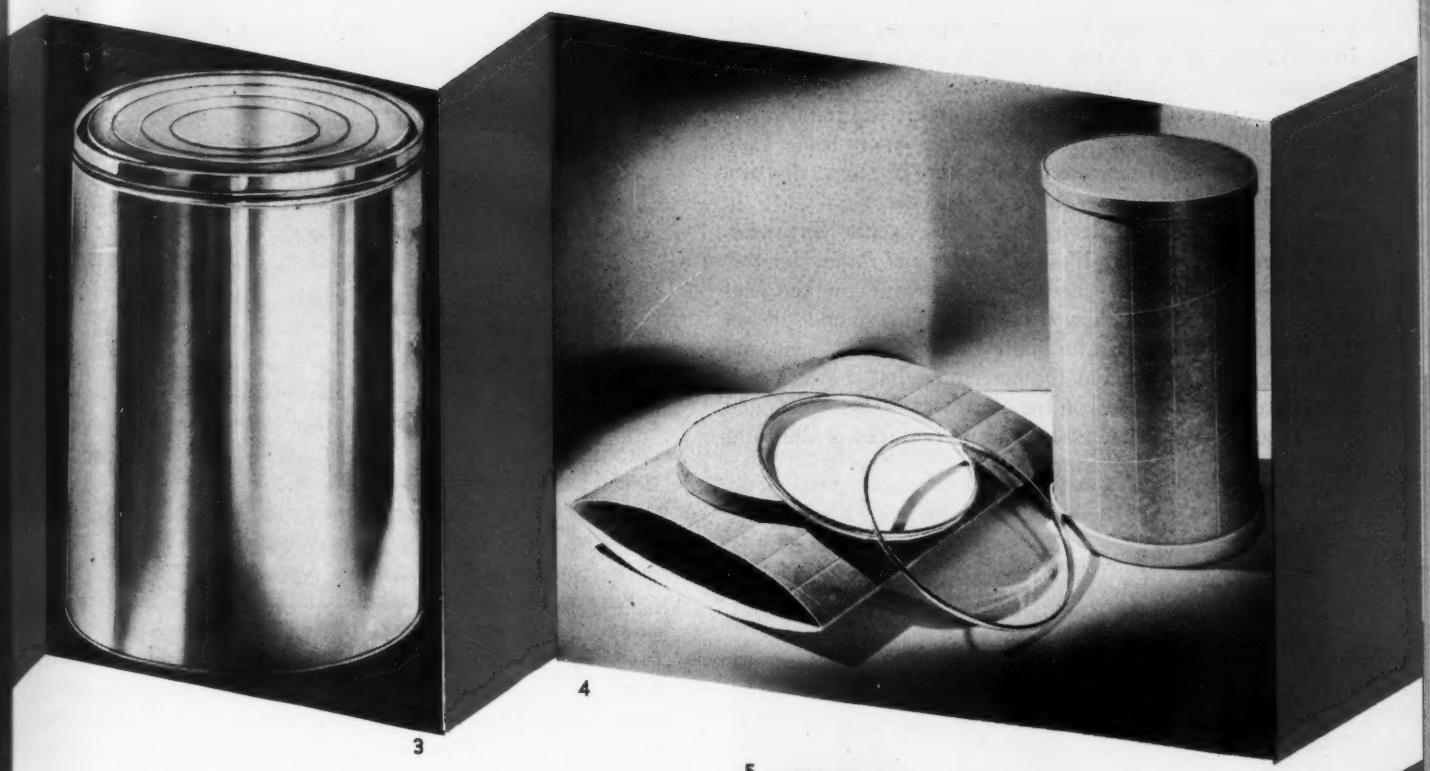
The first commercial pack of frozen fruits, made at Puyallup (Wash.) in 1908, was put up in wooden barrels and for many years the Pacific Northwest industry—which was the U. S. frozen food industry in those days—used this container almost exclusively. Some of the cooperage consisted of small kegs—largely 10-gal.—but the major part of the pack went into the standard 50-gal. size, holding from 380 to 450 lbs. As late as 1926–30, 75% of the entire Washington-Oregon frozen fruit production was in 50-gal. barrels.

In the 1920's, however, other sections of the country became frozen fruit producers and with these new firms came new packaging habits. So, although the barrel remains an important container in the industry, it does not represent anything like as high a percentage of the total pack as it once did.

Figures compiled by *Western Canner and Packer* on the Washington-Oregon portion of the business show what has happened in that region. The average percentage of the frozen fruit pack barreled in the Pacific Northwest since 1926 has been as follows:

Period	*Average Per cent Barreled per Year*
1926–30	74.3%
1931–35	82.5%
1936–40	67.7%
1941	59.2%
1942	57.1%
1943	58.2%

Nationally, despite the fact that the Pacific Northwest is the largest fruit freezing region in the nation, the percentage of the total frozen fruit pack put up in barrels is somewhat smaller. Data gathered by National Assn. of Frozen Food



3 4

Packers reveal that the following portions of the U. S. frozen fruit production went into cooperage, in the years 1941–1943:

Year	*Average Per cent Barreled per Year*
1941	44.9%
1942	36.7%
1943	43.9%

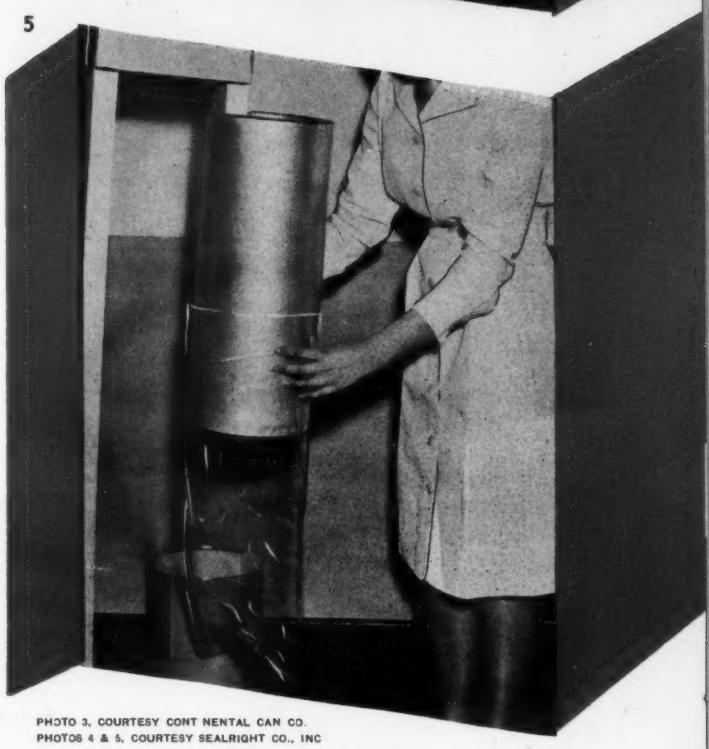
Despite the smaller percentage of frozen fruits going to market in barrels, the over-all tonnage packed in this type of container has increased over the years. This is demonstrated by the following figures, which show the Pacific Northwest barreled output back to 1926 and that for the nation as a whole for the last three years, in thousands of pounds (000 omitted):

Period	*Washington-Oregon Pack in Barrels*	*U. S. Pack in Barrels*
1926–30	33,401	*
1931–35	36,364	*
1936–40	39,903	*
1941	58,942	93,303
1942	47,169	81,423
1943	59,146	100,313

* Data not available.

Figures for 1944 are not yet available, but if the pack was approximately the same as that for 1943 and if the average content of each barrel was 425 lbs., some 250,000 barrels have been used in 1944 frozen fruit operations. This represents about 6½% of the estimated U. S. 1944 new barrel uses for agricultural products, which are reported by War Food Administration as totaling 3,880,000 units (exclusive of kegs and tubs).

As frozen fruits became better known among manufacturers of other types of food products, smaller and smaller firms began to come into the market for them. This created



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PHOTO 3, COURTESY CONTINENTAL CAN CO.
PHOTOS 4 & 5, COURTESY SEALRIGHT CO., INC

1—Fibreboard, in many shapes and sizes, now packages more frozen food than any other material. This is typical 10-lb. size, waxed fibreboard folding carton used for Birds Eye-Snider fruits for bakers, ice cream manufacturers, etc. Has inside heat-sealing bag of high wet-strength paper. 2—Folding paperboard carton with cellophane liner is most popular package for consumer-size vegetables. 3—Slip-cover metal can has lost ground due to shortages, but is still much desired, in 30- and 50-lb. sizes, for shipment of fruit to re-manufacturers. 4—War-developed paper can has advantage of collapsibility for shipment and storage. Most popular in 5-gal. and 30-lb. sizes. 5—Cellophane bag liner for paper can is formed over mandrel.

a demand for containers holding less than the 50-gal. barrel. In such states as New York, Michigan and Wisconsin, therefore, packers began putting up their fruits in slip-cover cans.

Use was especially great for red cherries, the familiar pie fruit required by a large percentage of the bakery trade. Considerable amounts of strawberries also were frozen in tins and later, frozen fruit purees for the ice cream field, etc.

The can never took a strong hold in the Pacific Northwest. The figures compiled by *Western Canner and Packer* for this area, therefore, do not adequately represent the national trend. However, they show that in Washington and Oregon the tonnage of frozen fruits going into cans has been well maintained up to 1943, but the percentage has shown a considerable decline. Figures on the Northwest frozen fruit pack in tins, both in total pounds and in percentages of the total pack, have been as follows since 1926:

Year	*Northwest Frozen Fruit Pack in Cans, Lbs.**	*Per cent of Total Northwest Frozen Fruit Pack*
1926–30	11,510	25.6%
1931–35	7,047	16.0%
1936–40	10,910	18.5%
1941	10,841	10.9%
1942	10,263	12.4%
1943	3,332	3.3%

* Thousands of pounds (000 omitted).

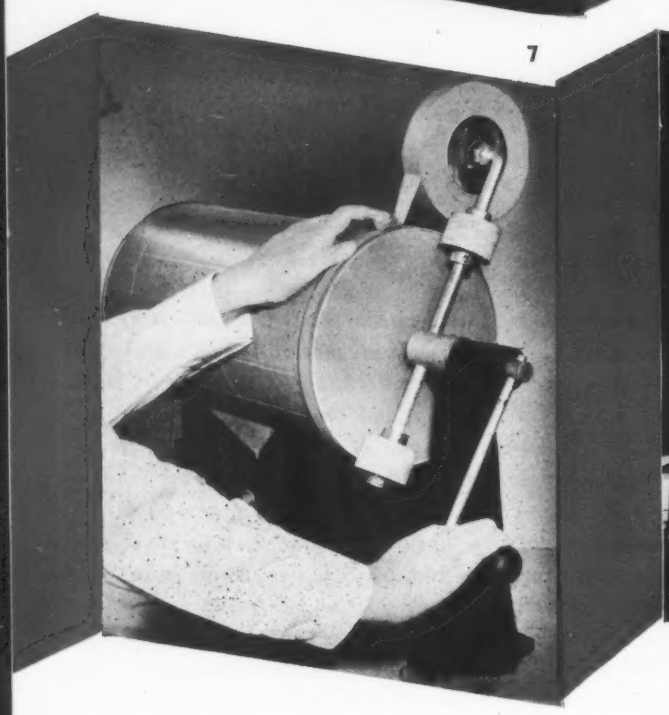
Nationally, far greater use was made of the can for frozen fruits. In 1941, according to National Assn. of Frozen Food Packers, 29.8% of the total tonnage was canned. In 1942 the percentage was 44.9%. In 1943, a casualty of the war, the tinned pack dropped to but 7.5% of the total.

Relatively small quantities of frozen vegetables also have gone into tin in the past, but no specific figures are available in that portion of the frozen food field.

Experimental work was conducted in the West, in the prewar era, on adaption of atmospheric, agitating cookers—of the type used in regulation fruit canning operations—to frozen foods. The principle involved was replacement of the boiling water utilized by canners with a brine chilled well below the freezing point. Although no results from these tests may be observed in present-day frozen food packs, at least one U. S. equipment manufacturer currently has in mind the application of a new type of atmospheric canned food cooker to the frozen field. If such continuous-operation methods should be



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***6**—Tapered container made of one piece of fibreboard composed of four plies of kraft and three of asphalt, is said to be liquid tight and exceptionally sturdy. Used with cellophane liner. Tapered shape permits nesting in shipment and storage.* **7**—*Pressure-sensitive tape is used, with this equipment, to seal lids on paper cans.* **8**—*Consumer size packages are shipped in corrugated containers, shown here emerging from a case sealer.*

PHOTO 6, COURTESY THE ARVEY CORP.
PHOTO 8, COURTESY BIRDS EYE-SNIDER, CORP.

successful with frosted foods, a major change in the packaging pattern might follow in the postwar period.

The last type of package to be adapted to frozen fruit and vegetable use, but the one into which the greatest tonnage goes today, is that using fibre materials. This classification includes cellophane and similar transparent materials, waxed and glassine papers, vegetable parchment, latex-base and related films, cartons and fibre cases and paper cups.

There are two chapters to the fibre package story in frozen foods. The first is the adoption of these materials by the fruit packers, the second the rise of frozen vegetable operations.

In the fruit field, the statistics compiled by *Western Canner and Packer* for the Pacific Northwest show the trend. The pack in fibre containers since 1926 in Washington and Oregon has been as follows, in terms of total pounds and as percentages of the two-state output:

Year	*Northwest Frozen Fruit Pack in Fibre, Lbs.**	*Per cent of Total Northwest Frozen Fruit Pack*
1926–30	25	0.1%
1931–35	692	1.5%
1936–40	8,165	13.8%
1941	29,747	29.9%
1942	25,130	30.5%
1943	39,062	38.5%

* Thousands of pounds (000 omitted).

For the country as a whole, data compiled by National Assn. of Frozen Food Packers show that the percentage of the frozen fruit pack put up in fibre boxes, cartons and related containers has been as follows in the last three seasons:

Year	*Per cent*
1941	25.3%
1942	18.4%
1943	48.6%

In 1941, over half of this quantity of frozen fruits was in small containers for the retail trade. The proportion was about the same in 1942. In 1943, however, the 30-lb. carton became the leading size for fruits and institutional sizes ranging from 4 to 50 lbs. amounted to nearly 85% of the entire fibre pack.

Meanwhile, freezing of vegetables became established as a commercial business. In 1937, first year in which *Western Canner and Packer* compiled data on the national pack, it totaled 72,500,000 lbs., a phenomenal output for a 10-year-old industry. But in 1943, for the (*Continued on page 138*)

9



10



11



9—Wooden barrel still ranks second as container for bulk shipment of frozen fruits. Photo shows the common rack arrangement during freezing process. 10—Beautifully decorated frozen food stores will require postwar packages in keeping. This view of the Frozen Food Center, Inc., recently opened in Pittsburgh indicates the trend. 11—Collapsible paper can in 30-lb. size is also used for frozen eggs. It can be attractively printed.

PHOTOS 7 & 11, COURTESY SEALRIGHT CO., INC.
PHOTO 9, COURTESY THE WOODEN BARREL



Test packs

The National Dehydrators Assn. has completed its plans for a sales test of dehydrated foods in the grocery stores of Grand Rapids, Mich., under the auspices of the Farm Credit Administration. All the vegetables selected for the test have been packed in tin containers and are to be marketed in from 30 to 50 stores under a common brand name—"Hy-Rated."

The diced beets and carrots are being packed in size 202 by 308 tins, the diced sweets and diced and Julienne potatoes in size 211 by 400 and the onion flakes in size 208 by 308 friction top tins. Each tin holds four normal-sized servings.

The labels are a four-color job with a reproduction of the product in full color. Recipes and variations for the preparation of each of the products are included on the label plus the seal of "Approved Quality" of the association. A recipe booklet, "Cooking Dehydrated Vegetables," prepared by the Bureau of Human Nutrition and Home Economics of the U.S.D.A. is to be distributed to purchasers in the grocery stores. Preparation directions are also included in each can to avoid any chance of error. On the instruction slip is a space for the purchaser to fill in name and address to receive further cooking aids. It is the intention of both the association and the Dept. of Commerce to follow up these leads in an effort to find out the reaction of the housewife to these types of products.

Fifteen food companies are cooperating with the association to produce the food for this test and the Chamber of Commerce, trade associations and civic organizations, as well as the newspapers of Grand Rapids, have offered their cooperation to make the test a success.

CREDITS: *Cans, American Can Co., New York, and Continental Can Co., New York. Labels Rossotti Lithographing Co., Inc., Bergen, N. J. Packaging, Reid, Murdoch & Co., Chicago.*

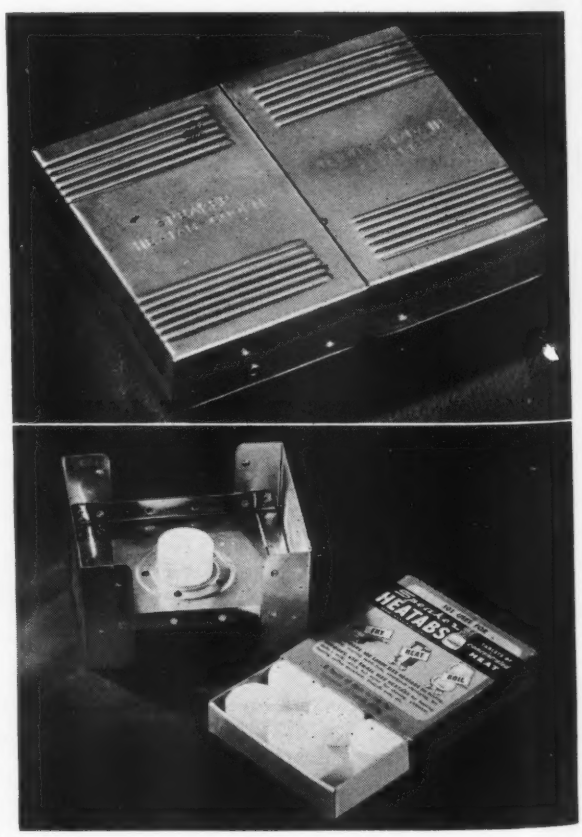
Power tubes on springs

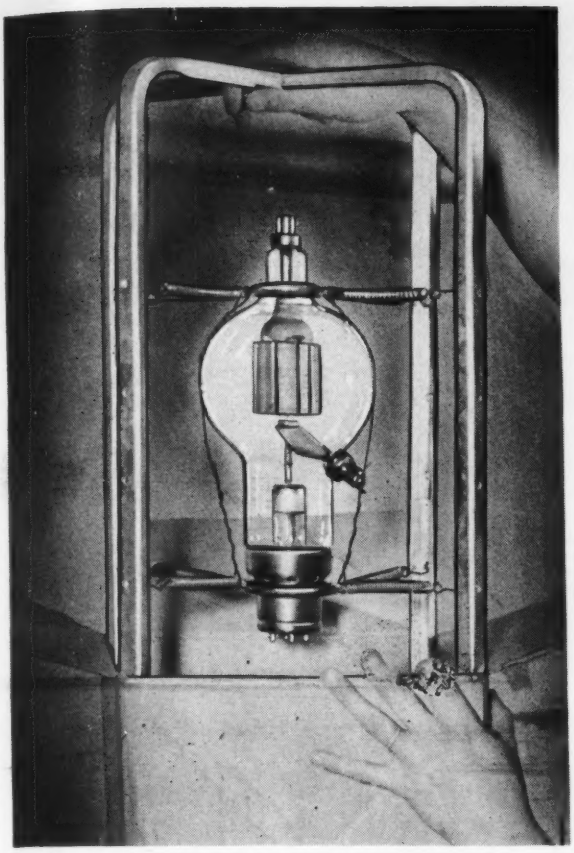
Large electronic power tubes are now being shipped overseas in a package which consists of a set of interlocked stainless-steel springs suspended in a galvanized steel X-frame which fits diagonally in a corrugated cardboard box. In a dramatic demonstration, one of these spring-packaged 450-T tubes was dropped 20 ft. from a roof top. Although every part of the internal structure of the tube experienced a force estimated in excess of 200 times its weight at rest, the tube supported at neck and base between two spring planes made up of four springs each, emerged from the drop unscathed. The 450-type tube has also withstood drop distances of many times the specified 26-in. fall without the slightest damage to filament, element alignment or envelope.

In addition to its great strength, the spring package, which was developed by Eitel-McCullough, Inc., at its San Bruno(Calif.) plant, has the advantage of complete resistance to the deterioration in storage and the attacks of tropical fungi, heat and humidity, which have seriously affected other types of packages heretofore employed in shipping large tubes. Even if the cardboard box were to fall awayentirely from the metal frame, the tube would remain safely suspended in its spring package.

The package affords the military services vitally needed protection for fragile tubes exposed to the hazards of long-distance shipping, rough handling, battle concussion and other shocks which break filaments and shatter glass.

DESIGN





HISTORIES

Stoves for foxholes

Soldiers overseas are getting these little stoves which give them another comfort of home from home. Closed, the whole unit looks like a small metal box measuring about 3 by 4 in.—which, in fact, it is. Opened, however, it forms the stove shown in the lower photograph, over which G.I. "K" ration can be warmed into a more palatable dish or water heated for a beverage.

A depression in the center of the platform holds the tablets of concentrated heat and holes around the depression provide draft. A small sleeve carton of 18 of these tablets fits inside the stove when not in use to make a complete unit for retail sale.

J. W. Speaker Corp., manufacturers of the stove, claim that it will heat, fry or boil up to 1 lb. of food or liquid. If a small can of food is to be heated the upright legs of the stove can be tilted inward enough to accommodate the diameter of the can.

Since the complete unit weights only $5^1/_2$ oz. it can be sent abroad without a request and, further, each stove is packed in its individual paperboard wrapper suitable for overseas mailing. These factors have made the stove very popular with the folks back home planning soldier gifts, but the manufacturers also suggest it for many other uses such as camping, fishing, picnics or just a quick, hot roadside meal. Indoors it can heat water for a quick shave or warm the baby's night bottle.

CREDIT: *Sleeve cartons, Cuneo Press, Milwaukee, Wis.*

By men for men

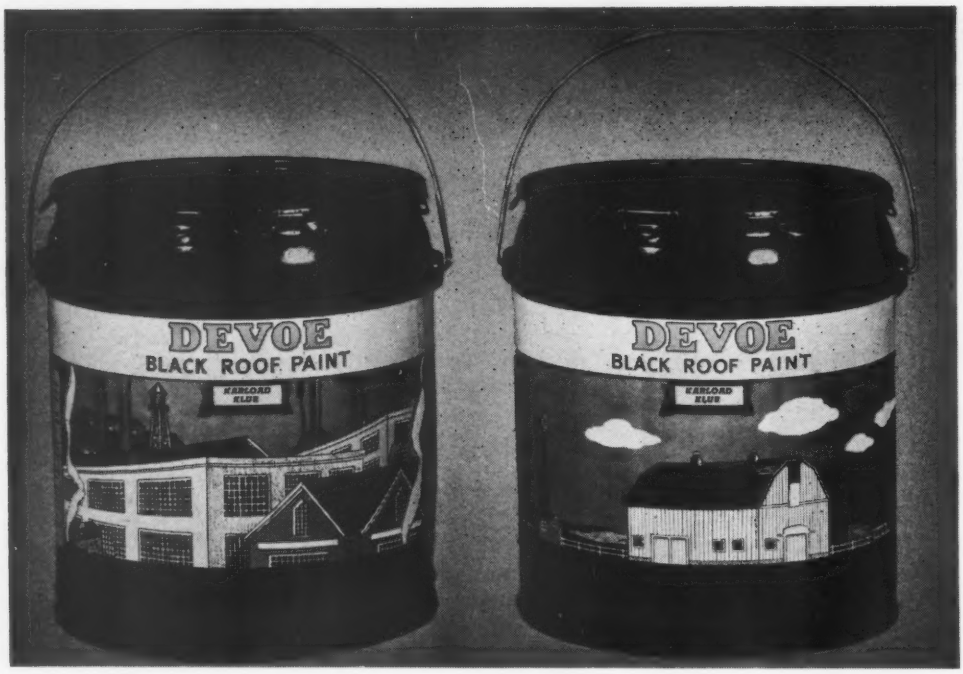
Another complete line of men's cosmetics makes its bid for a place in the fast-growing market for men's toiletries. S. Buchsbaum & Co., manufacturers of men's necessities such as belts, braces, billfolds and jewelry, have added these Style King "VALaids," designed by men for men, to the family completing its line of furnishings and accessories.

A maroon and buff color scheme was adopted for several reasons. In the first place, these colors are used for all of the company's other packages and, by using them on both the set and individual pieces in the toiletries line, the dealer is encouraged to display all the company's products in groups. This holds true particularly at gift time when the suggestive value of group displays is important. Also, buff and maroon have been found to be colors which blend well with the colors generally used for men's furnishings and apparel.

The bottles and mugs are decorated with decalcomania-like labels applied by hand following the style of the trademark used on the cartons. Set-up, hinge-lidded boxes hold sets made up of from two to six individual items. Paperboard die-cut platforms make recesses for each piece and script-like type is used for the tradename throughout.

CREDITS: *Set-up boxes, Acme Paper Box Co., Chicago. Folding Cartons, Ace Carton Corp., Chicago.*





1

1—Front and back of new Devoe & Raynolds roof-coating label—one side for rural promotion, the other for urban. This pictorialized label has brought product out of stock rooms into front-of store display space. Result: 500% sales increase.

Town and Country . . . double-duty paint labels

In the back rooms of retail hardware and paint stores there are still many products in hiding. These products have not been brought into the front of the store because they have not been packaged for display merchandising.

Many such utilitarian products are merely identified by product name and contents. In this class are such commodities as roof coating, putty, caulking compounds and so forth.

More and more manufacturers of these products are realizing that the same display packaging used in food, drug and toiletries fields will also pay dividends in these hardware and paint lines which for many years have been neglected.

A striking example of what a dramatized package label can do is reported by Devoe and Raynolds Co., Inc. Since this company coaxed its roof-coating paint out of back store stockrooms by the simple use of a glamorized label and a salesman and dealer promotional program to back it up, the company reported a 500% sales increase in this product above sales during any comparable previous 60-day period.

This roof coating is sold primarily in 5-gal. cans. First step in the new package program was to plan an eye-catching label so that the large cans could be displayed in windows, on shelves and stacked for mass display, carrying a suggested sales message that would appeal to the consuming public, perhaps even win display space going to waste today in departments selling refrigerators, vacuum cleaners and other appliances now unobtainable.

First consideration was a brand name. This was selected to capitalize on the idea of a volume sale to the consumer and the resultant saving by purchasing in large quantity. Since the paint was packed in 5-gal. cans, this made a good talking point. The name selected to suggest this idea was "Karload Klub." The label had to have plenty of color for attention value. It was further planned to use a label which would be equally effective as a merchandising tool for both city and country consumers. A four-color job was favored with strong panels of yellow predominating, accented boldly with red. A pictorialized treatment was used. One section of the wrap-around label is a farm scene with barn and usual farm buildings suggesting the need of protective roofing paint for rural use. The other section depicts a typical industrial city scene showing the roof tops, smoke stacks and water towers of factories. The two scenes are so arranged on the label that the farm one appears on one side and the city one on the other. Manufacturer's name, product identification, brand name and contents appear the same on both sides of the can. By using this type of a label, the dealer may arrange a display of the packages that will intrigue either a rural prospect, or a city prospect. Or he may stack the cans for use with supplied promotional material issued by the manufacturer for both rural or city trade.

Two yellow panels printed in black separate the two pictorial effects at each side. One of these describes recommended uses for the roofing paint—"for roll roofing, metal roofs, metal sheds, gutters and buildings, vents and pipes, pipes and tanks above or under ground." This panel also includes instructions for using the paint. The other panel with the heading, "Protect hard-to-replace roofing now," is an out and out sales message, emphasizing the need for making things last for the duration.

Below each of these panels, repeated on both sides, is the Devoe & Raynolds trademark—a circle with an Indian in the center—and the inscription, "The first American paint makers —founded 1754."

The new pictorialized label is backed up by a complete merchandising campaign to aid salesmen and dealers. First,

a set of posters was made for presentation to the sales forces. One of these listed the advantages of the new label as follows under the title, "Label unique in the roof-paint industry":

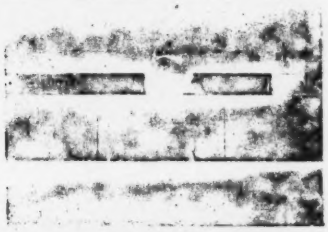
1. Brand name
2. Color—attention compelling
3. Its very name indicates value through volume
4. What war has taught us about labels
5. The Philadelphia story (success story of the labels in a local area)
6. Rural-urban appeal
7. Every can a display—every stack a billboard.

The other sales-presentation posters in the series illustrated separately each one of the above points. For example, one emphasized that the trade name, Devoe, "has ready acceptance with the paint-buying public." Pictured on this poster was the company name and trademark. Another poster emphasized the eye appeal of the colored label. A third stressed the value through mass distribution savings. On this was a cartoon of a small boy looking at a window full of candy with a caption reading, "Like piling bushels of candy in a window . . . Like pyramids of merchandise stacked for price appeal." At the bottom is a cartoon showing two farmers talking, with balloon blurb, "a carload that means lower prices," tieing in with the brand name, Karload Klub. Still another poster in the series depicts the new label, showing the double-duty appeal of the labels for farmers and city folks. At the bottom of this one is a cartoon figure of a salesman carrying a brief case in one hand and a 5-gal. can of paint in the other, with the written suggestion, "Carry an empty 5-gal. bucket," when making dealer calls. A fifth poster with a down-to-earth heading, "Plain Price (*Continued on page 144*)



2

2—*Success of the new labels was due to the carefully planned merchandising campaign which aids both salesmen and dealers. Advantages of the label were presented to the sales force with posters like these.*





3

3—*Central theme of dealer display material is based on a cartoon technique carrying the "Don't wait for this" idea through a series of counter cards, stickers, posters and streamers. Price spots stress the economy—promote quantity sales.*

Stratosphere lunch . . . . with gloved hands





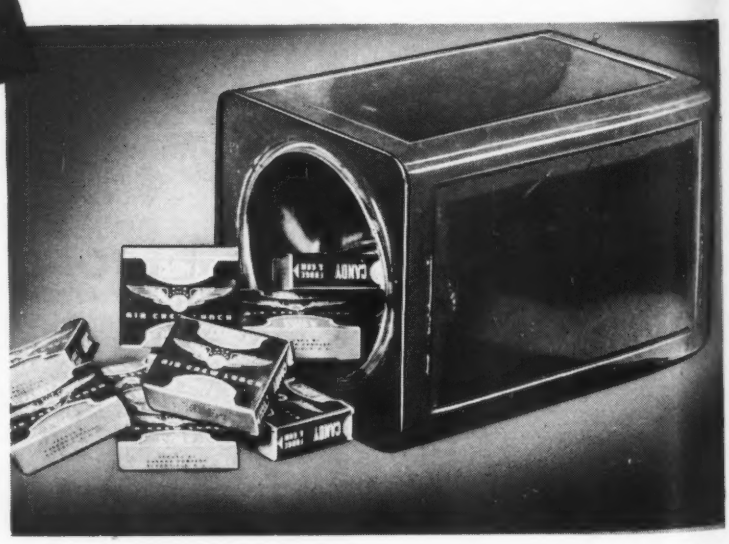
Army Air Forces experiments long ago demonstrated that if a combat flier could consume a few ounces of candy while at high altitude, the energizing effect of the carbohydrates would be such that he not only could fly longer and better but could go approximately 5,000 ft. higher without the use of his oxygen mask. But the removal of a heavy flying glove to unwrap the usual candy bar or ration packet could easily result, at stratosphere temperatures, in frozen fingers.

These considerations have led to the development by the Quartermaster Corps of an unusual Air Crew Lunch package which can be opened and emptied with one gloved hand. Mechanism of the package is illustrated by the accompanying pictures. The inner carton has a sleeve covering. When the inner carton is slid one way it exposes a round opening through which small candies may be dropped directly into the mouth; slid the opposite way it exposes a flap opening through which fudge bars and chewing gum may be extracted in the same manner.

As rapidly as it can be shipped, the new package will be issued to every combat flier on a mission of three hours or more. Although the candies—including chocolate-covered peanuts, fondant creams, chocolate drops, licorice drops, gum drops, fudge and chewing gum—weigh only 4 oz., they are carefully calculated to provide 480 calories, which at high altitude are assimilated almost instantly. The Quartermaster Corps was assisted in calory studies by the Nutrition Foundation, New York, where experimental work was done in connection with high-altitude energy tests and by the Physiology Department of Northwestern University.

Design of the package was worked out by officers of the QMC Subsistence Research and Development Laboratory at Chicago in collaboration with the Container Corp. of America. Patent has been applied for.

It was considered important to have the package attractive, for morale effect, as well as functional. The design in red, white and blue features a stylized Air Forces insignia in reverse white with red star on the (*Continued on page 140*)



1—*This way, fliers eat with their mittens on. Pilot can keep one hand on stick, drop candy directly in mouth.* **2**—*Ingenious construction of carton discharges candies through round hole when pushed out at one end; fudge, and gum through flap at other.* **3**—*Rations are shipped in 5-gal. can with double friction top, which preserves them indefinitely.*

Tomato wraps *that breathe*

From September to well into May the Fairchester Packing Co., in Mamaroneck, N. Y., repackages on an average of 24,000 boats of Southern-grown tomatoes a day. Two fully automatic wrapping machines, running at full speed, turn out cellophane-wrapped containers of ripe tomatoes ready for the retail market.

Green tomatoes arrive in the North from Florida, California, Texas, Mexico and other Southern climates by the carload-lots, packed in 30-lb. crates. They must be unpacked, ripened and repacked (MODERN PACKAGING, February, 1944, page 78) before they can be distributed to Northern markets.

To make a cellophane-wrapped package which would keep the tomatoes in the best condition for the longest time possible repackagers found in the past that a heat-sealing cellophane which was not moistureproof gave the best results. This cellophane let air get in and out of the packages thereby allowing the tomatoes to breathe and increasing their shelf life. Since the war, however, this cellophane is no longer available and regular M.S.T. cellophane had to be used.

One of the machines used by the Fairchester Packing Co. (see illustration) is equipped with two punches which make small holes in the moistureproof wrap to give air to the vegetables. With slight revisions, the punch is essentially the same as the code-dating attachment used for the waxed paper wraps in the biscuit field. Each punch is $^1/_4$ in. in diameter and they are spaced 180 deg. apart on the shaft.

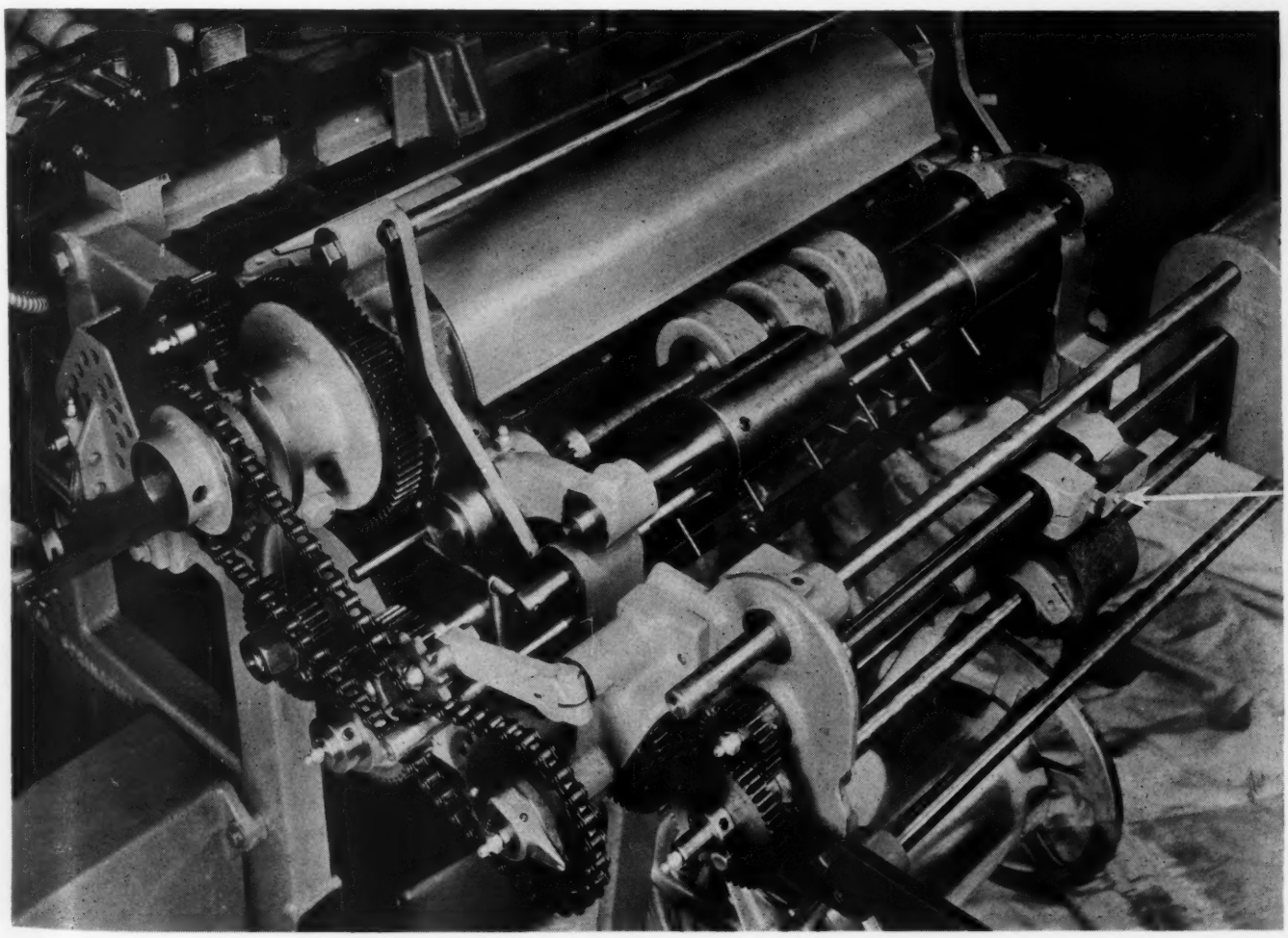
The fixtures for the punches are mounted on a shaft which is driven by elliptical gears. The purpose of these gears is to regulate the rotation of the punches with the speed of the paper. Immediately following the punching operation, the shaft turns faster so that the cellophane will not be torn. The machine also is equipped with an indicator dial and a pointer so that the punched holes can be adjusted to any position on the web of the film.

Under the punches is a soft rubber roll so that the punched piece will not be completely severed from the cellophane but will hang by a shred. This is to prevent the detached pieces from getting into the package or the machine or being blown over the packing floor.

The Fairchester Packing Co. believes that postwar, with the advent of air freight, these machines will be used extensively for wrapping out-of-season fruits and vegetables.

CREDIT: *Punch-equipped wrapping machine, Package Machinery Co., Springfield, Mass.*

Arrow, right, points to punch. Rubber roll underneath prevents cellophane from being completely severed.



Packaging Pageant



1



2



3

1 "Blue Peter" eau de cologne by d'Artimon, sports an unusual closure made of two pieces of rough wood—just two blocks fitted together and supposedly held on by a nautical-looking string arrangement. Actually inside the lower wooden piece is a standard metal screw closure. The string is held on by means of sealing wax and in order to keep the decorative effect intact four spots of red sealing indicate where to cut the string without spoiling the decoration. Each bottle is overwrapped with corrugated paper and packaged in its own set-up box.

2 The newly designed package for Magic Chef Spaghetti Dinner (right) is now completely machine packed, replacing the old hand tucked and filled package (left). Although both packages are the same size the new one creates the impression of a broader front panel. As can be seen, a new chef has been



4



5



6

adopted—one who's expression is more genial than the old. The lettering of the brand name has been improved as to legibility and shelf visibility, with special emphasis on the word "Chef." Design, Mel Richman, Philadelphia, Penna. Carton, Rossotti Lithographing Co., North Bergen, N. J.

3 Daggett & Ramsdell's new cake make-up "Mountain Heather," comes in a shell-pink compression molded case of urea formaldehyde. The spray of flowers which decorates the cover is part of the mold and the name is depressed directly into the material. White paint is rubbed over the depression to bring out the lettering. A metal liner keeps the make-up from direct contact with the plastic. Molding, Norton Laboratories, Inc., Lockport, N. Y.

4 Simulated leather in pin morocco grain lined with a soft pink washable fabric lining makes this traveling case for La Crosse products. All the necessities for a complete manicure or quick touch-up are included in the compact kit. The molded plastic platform is cut out to hold the three bottles firmly and the implements slip under a holding tape in the drop front.

5 Salt and pepper shakers, injection molded of cellulose acetate compound, are packaged in a box of the same material which can be used as a cigarette box. The set, planned primarily to sell as a gift item, comes in four shades to match or contrast with breakfast or luncheon china. The seasoners are designed to eliminate clogging—by pressing the button on top, the condiments are released in measured amounts. The black button is the pepper, the white, salt. Injection molding, Modern Plastic Co., Los Angeles, Calif. Molding compound, Tennessee Eastman Corp., Kingsport, Tenn.

6 Tuck-Aways, a new perfumed sachet, manufactured by the Trimz Co., Inc., Chicago, are paper packets measuring about $3^1/_2$ in. across and contain four popular flower scents: rose, carnation, lilac and gardenia. Three sachets are packed in a glassine envelope along with an insert which suggests using them for bridge prizes or place settings. All four fragrances are packed in a shipping container which opens up to serve as a counter display. Glassine envelopes, Traver Corp., Chicago. Carton, Ace Carton Corp., Chicago.

7 A waterproof match case molded of cellulose acetate butyrate and colored olive-drab has been developed for the Army. The tight-fitting top screws on by means of threads produced in the mold. A metal striker is inserted in the bottom of the case and, for safety matches, a striker is glued inside the top. Ribs are provided for better grip. Molded by National Organ Supply Co., Erie, Penna. Molding compound, Tennessee Eastman Corp., Kingsport, Tenn.

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1—Stitching a corrugated container with wire staples during experiment at Picatinny Arsenal. 2—Blueprint guides construction of corrugated box to be tested. Many experimental containers are made up for testing.

Better packaging helps pass the ammunition

Specially designed equipment that simulates conditions under which ammunition is shipped to global battle fronts and stored there until used is employed at Picatinny Arsenal, Dover, N. J., in the development of better ammunition packaging.

Picatinny, one of the old-line Ordnance Department arsenals, manufactures artillery ammunition, bombs and pyrotechnics, and is the center of research and development for such items. In order to insure that ammunition manufactured at the Arsenal and other war plants reaches theaters of operation in usable condition, the Ordnance Department made the Arsenal the center of research in packaging as well and ordered the establishment of an official packaging laboratory there. Results of the work are sent to the Industrial Service of the Ordnance Department and from there made available to plants and depots throughout the country.

Much of the equipment used was designed by engineers of the Arsenal's Technical Division, headed by Col. Miles W. Kresge. It tests shipping containers to the point nearest destruction, so that by the time a container has survived the tests, it has been put through as rigorous treatment as it would receive in transit to the front lines.

Picatinny's part in the development of packaging began last year when reports from overseas told of ammunition arriving in badly damaged, and even useless, condition. Today, as a result of perfected packaging techniques, ammunition is being delivered at the front lines in tight containers which protect the bombs, shells and rockets against moisture, severe cold and heat, as well as against damage from falls.

The standard test of metal, fibreboard, wood and heavy paper containers used at Picatinny starts with placing the package in an immersion tank. Filled with water 10 ft. deep, this tank gives the container the treatment it would receive if dropped into a water-filled foxhole or into the surf during a landing operation.

Other moisture tests subject containers to widely different degrees of temperature and humidity in sealed rooms. One unit provides temperatures from 50 deg. below zero to 180 deg. F. and relative humidity from zero to saturation.

Temperature and humidity conditions are set so as to cause the greatest possible amount of damage to the containers. For example, it has been found that most wooden packages swell out of shape, mold and grow moss rapidly when there is an 80-deg. temperature and an 80% relative humidity. Wooden boxes are accordingly placed in sealed rooms under these conditions.

Arsenal technicians have also found that wax is most brittle when subjected to extreme cold and that some plastic materials break into pieces at low temperatures.

A specially constructed vibrating machine simulates jarring and vibration received by containers in transit by railroad, by ship and by trucks traveling over corduroy roads. It has been found that a box placed on the vibrator for four hours will receive approximately the same amount of punishment

caused by such vibration to containers shipped from Picatinny to an island in the South Pacific.

A revolving drum 14 ft. in diameter and a drop apparatus also provide tests. Packages placed in the 14-ft. steel drum tumble 100 times as the drum revolves. After each 25 falls, the package is taken out and dropped from a height of 4 ft. on to a steel plate reinforced by 4 ft. of concrete. Containers are dropped on edges and corners and then put back in the revolving drum for more jolts and falls.

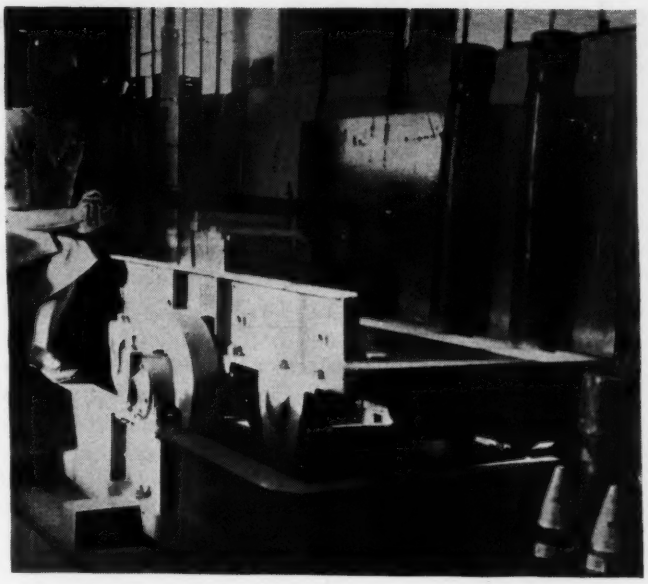
The procedure follows as closely as possible the actual conditions of shipping. It is estimated, for example, that a box of ammunition is handled approximately 100 times from the Arsenal to the soldier at the front, although there may be only half a dozen major points of trans-shipment. The Ordnance Department is striving to eliminate as much handling as possible. The 4-ft. fall in the drop test is approximately the height from which a container would fall from the tailgate of a truck, or from the top of a stack of boxes.

Following rough handling tests, containers are again submerged in the immersion tub to check for leaks in the cases, or they are given an air test. A small hole is made in the containers and air is pumped in up to a pressure of about 2 lbs. to determine if breaks have developed.

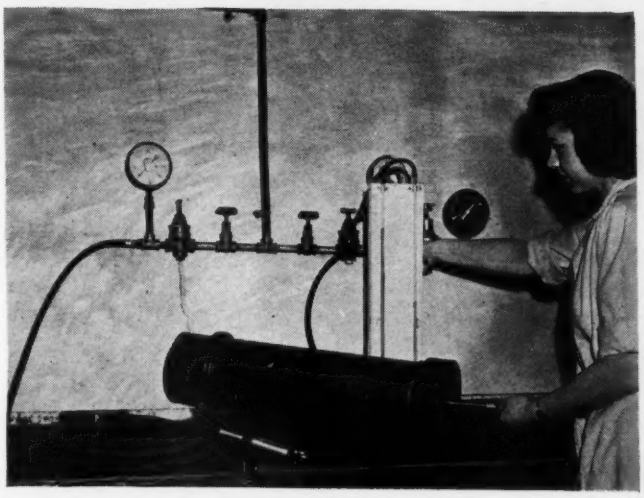
Picatinny's packaging laboratory is also equipped to develop containers on the spot in a relatively short time.

Machinery is available to produce fibre boxes, to score corrugated board and felt containers, to stitch joints, to tape sides and tops of boxes, to seal (*Continued on page 146*)

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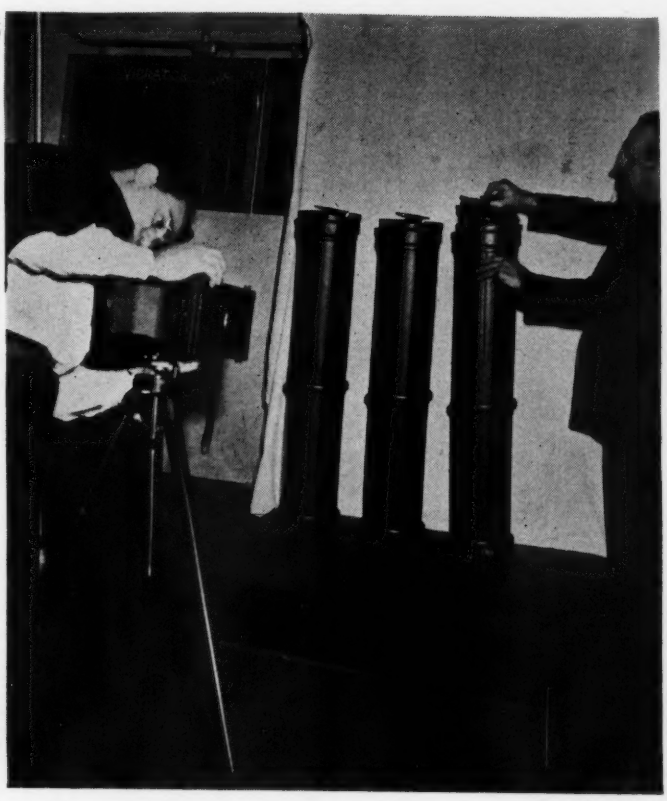


3—Ammunition gets rough ride on vibrator as girl engineer checks packaging efficiency. Four hours on this machine simulates, in vibration, a trip to South Pacific. 4—Conducting air-pressure test on new-type steel ammunition container. 5—Three steel cartridge storage cases for 155-mm. propellant charge have their picture taken after having been put through the testing procedure. 6—Immersion tank simulates surf landing. Tests water-tightness.

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Postwar displays . . . the dealer has ideas

*by M. Kallenberg**

In an effort to learn the dealers' viewpoint toward postwar point-of-sale displays, the writer recently made a survey in literally hundreds of dealer outlets throughout the states of Tennessee, Oklahoma, North Carolina, Illinois, Missouri, New Jersey, Massachusetts and New York. He spoke with homespun dealers in rural districts and small thriving towns; he questioned dealers operating in mushroom war defense areas; he interviewed alert, progressive dealers in large metropolitan areas. And he returned to his office with the conviction that the national advertiser will find a new dealer psychology confronting him when he resumes his display campaigns in dealer outlets.

Dealers (and there seem to be no exceptions), making more money than ever before, have developed a strong self-security and self-assertiveness. They recognize themselves as an important factor in the community, not merely a buffer or middleman between manufacturer and consumer. Out of this inner sense of assurance has emerged a wider vision, a confidence that they can give to and, therefore, can demand from the manufacturer better point-of-sale support. Dealers in the "B" and "C" classifications burn with the desire to grow into "A" outlets. All see themselves progressing in their status, building toward a higher and more successful level in the retail world.

To further their aims, 95% of dealers interviewed said they were going to spend some of their money toward the redesigning of their store fronts and interiors. Questioned as to the type of display they would accept and feature prominently in their establishments, dealers stated: "They must blend with my new store interiors." "They must make my store look like an A outlet." "They must help dispense merchandise." "They must do something for me." Remarks like these left the writer with the feeling that displays which did not perform these functions definitely would not be put to practical use.

Some dealers had specific ideas and demands, varying according to the outlet.

The liquor stores and bars wanted units of dignity, but these had to be compact, made of quality materials, telling their story briefly and convincingly.

The delicatessen shops, with little display space, wanted an advertiser to be altruistic enough to feature not only his product but delicatessen specials as well.

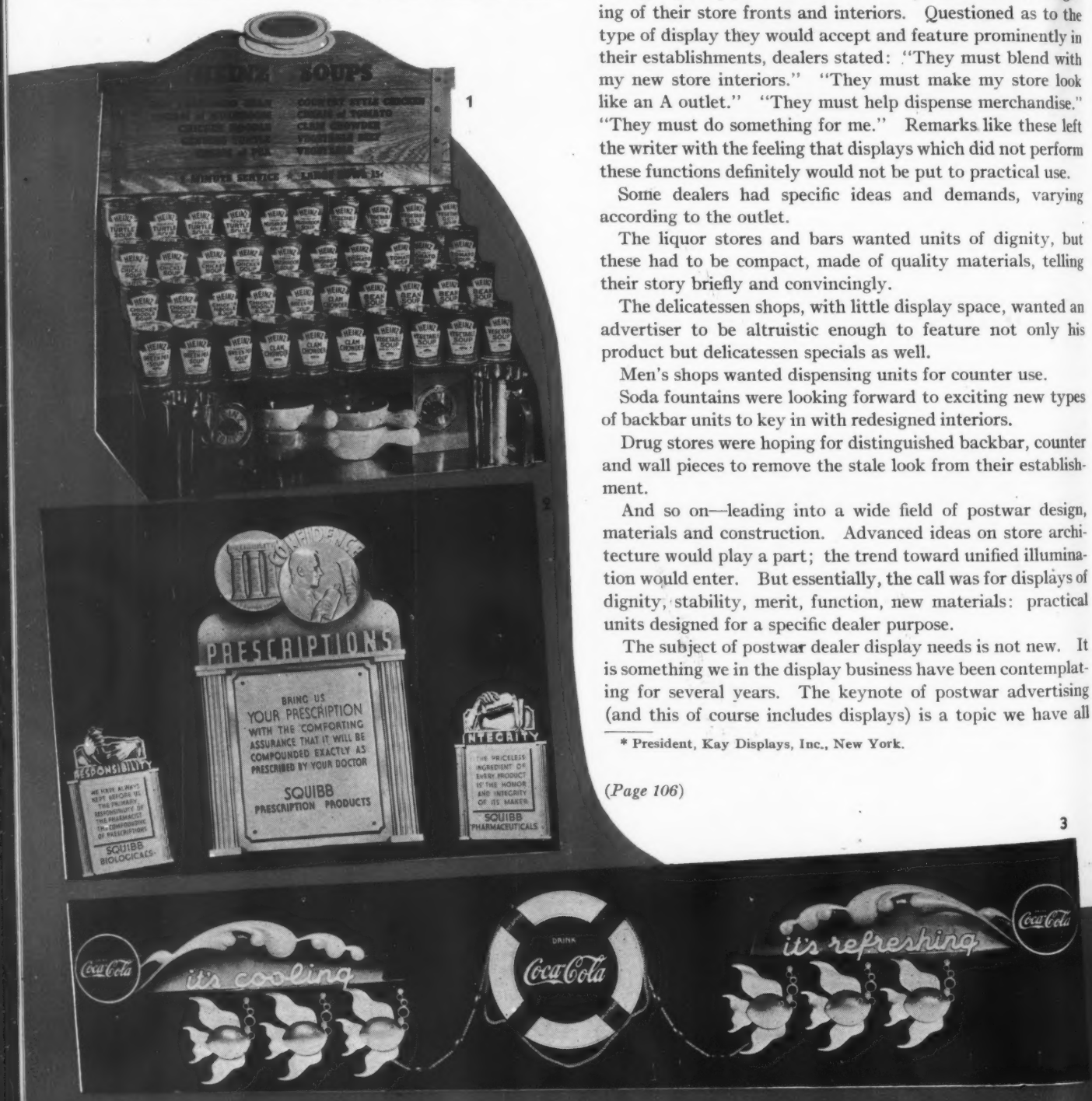
Men's shops wanted dispensing units for counter use.

Soda fountains were looking forward to exciting new types of backbar units to key in with redesigned interiors.

Drug stores were hoping for distinguished backbar, counter and wall pieces to remove the stale look from their establishment.

And so on—leading into a wide field of postwar design, materials and construction. Advanced ideas on store architecture would play a part; the trend toward unified illumination would enter. But essentially, the call was for displays of dignity, stability, merit, function, new materials: practical units designed for a specific dealer purpose.

The subject of postwar dealer display needs is not new. It is something we in the display business have been contemplating for several years. The keynote of postwar advertising (and this of course includes displays) is a topic we have all



* President, Kay Displays, Inc., New York.

(*Page 106*)

given earnest thought. We have listened to lectures, read articles, and discussed the subject with artists, designers, architects and engineers. Today, the type of point-of-sale displays which will meet most satisfactorily the dealer demand as stated and attract the largest consumer market, are already crystallizing in the plans of national advertisers.

In order to see how closely some of the displays designed and produced for national advertisers in the prewar era would approximate the need in postwar dealer outlets, the writer went through his files and came forth with a handful of photographs which are here illustrated. All of them he felt were sufficiently basic in the fundamentals of modern design to be acceptable in the postwar period; all were constructed of war-restricted materials, so that both the consumer and dealer would welcome them as signs of peace and postwar prosperity.

There had been a very successful unit made for one of the largest beverage companies in America, a fish and life-preserver ensemble made of wood and stamped metal, with accessories in rope, etc. The unit had received preference on the top backbar ledge over every other display piece that went into the soda fountain and candy store. Units of equal excellence in design, materials and workmanship had preceded this unit, others had followed it.

Then there was the F. & M. Schaefer & Co.'s One Hundredth Anniversary plaque. Up and down the stores within the Schaefer territory, we had but a few weeks ago seen this unit, bright and fresh, still hanging after three years' consistent service when other displays had long since been discarded. The plaque was an individual tribute to the dealer; therein lay its secret of long life. The display was produced in finest grained walnut, on which was mounted a hand-engraved brass plate, with the name of each of Schaefer's thousands of dealers individually engraved.

A functional three-piece unit had acted as silent salesman for Alexander Smith carpets. The large round center unit revolved on a turntable construction, with the carpet samples arranged in such a way that the customer could select his color and texture preferences at a glance. Auxiliary units were two low stands on which carpet patterns and prices were displayed.

Just before the outbreak of the war, Heinz soups had become more firmly established in soda fountains and restaurant counters through the use of a "SOUP'S ON" dispenser—a combination wood and metal unit, holding a variety of soups, heating cups complete with electrical unit, topped by a handsome wooden headpiece listing the soups. The H. J. Heinz Co. had properly considered this one of the most successful display-dispensing units produced.

The next photograph showed a small Hiram Walker backbar unit. The display was made of light stained walnut, with the name "Canadian Club" appliqued in red plastic lettering. Metal fins extended (*Continued on page 148*)

1—Successful soup dispenser, complete with electrical heater. 2—Long-lived institutional display made of wood, metal and stamped metal. 3—Preferred for backbar ledges in soda fountains this one is made of wood, stamped metal, rope, leather. 4—F. & M. Schaefer's 100th Anniversary plaque was individual tribute to dealer; therein lay secret of long life. Made of walnut, brass plate, molded wood decoration. 5—"Silent Salesman" enabled customers to select rugs. 6—Compact backbar unit proved small displays effective. Made of wood, plastic lettering, metal.

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(*Page 107*)

Glass standards . . . will they be maintained?

The Supreme Court decision of Jan. 8 ordering the dissolution of the Glass Container Assn. destroyed the one existing agency responsible for the development and maintenance of glass container quality and finish standards.

Final terms of the judgment as it affects the Hartford-Empire Co. and the six large glass container manufacturers remain to be adjusted in the Toledo District Court, but the high court was unequivocal in its edict that GCA must go and it specifically enjoined the defendants from forming or joining any such association for at least five years.

The decision is the considered judgment of our highest court and there can be no thought of further argument as to whether it is right or wrong. The hardship will be accepted as the price of justice. What must be done, and quickly, is to find ways and means of continuing the vital functions which GCA —regardless of its undesirability in other respects—unquestionably served.

The offices of the Glass Container Assn. have already been closed and its staff of technical and scientific personnel, who were responsible for the universally accepted standards built up over the last 25 years, have been released.

Activities of GCA

It may be helpful to sketch briefly those activities of GCA which are obviously indispensable. It will be up to the packaging industries to fill the gap.

The scientific research undertaken by the association through its Standard Testing & Glass Research Committee had for its purpose the development of quantitative measurements for glass and ware quality. Quantitative measurements made it possible to speak of various glass characteristics in definite terms which had the same meaning for everyone and hence to set up standards of quality. One of the first accomplishments of this activity was to develop standard pass tests for glass containers which were recognized and published by the American Society for Testing Materials.

The scientific research undertaken for this purpose matured into many other basic investigations in glass technology. A technique, primarily for quality control, was evolved whereby ring sections were analyzed and densities evaluated. A centrifugal device was developed for the measurement and analysis of cord and by means of this a procedure was made possible for a comparatively quick diagnosis of tank troubles, as a result of which immediate remedies could be prescribed. The subject of fracture and the factors which affect breakage received pioneering work, both in their theoretical and practical aspects.

The whole new field of statistical quality control in container manufacture was under study of the committee. Bulletins were issued periodically to keep plant men abreast of the latest data developed in laboratories here and abroad.

The best scientific brains in the industry contributed to the work and the results were put at the service of all companies, small and large. The net result was to raise the industry-wide level of glass quality for the benefit of packer and consumer.

Perhaps most important of all, however, has been standardization, both of finish and design. For the uninitiated, the "finish" is that part of a glass container designed to accommodate the closure. The chaos that would result if finish standardization were not maintained—the chaos that actually existed before finish standardization was established—is difficult now to imagine.

One of the first chairman of the GCA Standardization Committee has said:

"Looking backward (to the days before finish standardization) it probably appears ridiculous to most of us that the glass manufacturer, before supplying ware to a customer, had to find out who was supplying the caps and the cap manufacturer in turn had to find out who was supplying the glass, to feel reasonably assured that one would fit the other. And it was a gamble on the part of a cap manufacturer to run any quantity of caps, even though he had a definite order, for the reason that somewhere in the middle the customer might elect to change his source of supply for containers."

Interchangeability of sources

The interchangeability of sources of glass supply or of closure supply so far as cap fit is concerned is now so much taken for granted and is so closely woven into the fabric of the glass container business that its importance may be overlooked. That interchangeability has been the work of the Association's Standardization Committee over a period of some 25 years. The association issued blueprints, kept detailed records and in general coordinated the program.

Design standardization has had a shorter career in the association, dating only from 1937, but it promised to effect improvements for packers and consumers almost as revolutionary as finish standardization.

A standard as it applied to glass container design involves more, perhaps, than it does in other industries. A standard container design is not only a simplified design; it must also be capable of being manufactured efficiently on all the varying types of forming machines in the industry and it must perform efficiently on all of the various types of filling lines used in the glass packing field. It is, in short, the design which is the simplest, the best to manufacture and the best to use.

To arrive at a set of specifications which embody all three of these requirements is not a simple matter; it needs a thorough knowledge both of practical glass manufacture and of packers' problems. Moreover, the process of developing standards for an industry as diverse as the glass industry involves much experimentation and frequent compromise.

Effectiveness of standardization

The high degree of effectiveness of the standardization program during the war in achieving a greatly increased production with the maximum economy of materials, manpower and machine facilities has been due in no small measure to the experience which the industry's Design and Specification Committee had gathered in prewar years. This committee acted in an advisory capacity to the War Production Board in devising the standardization program embodied in Order L-103 and it stood ready to direct the important part which glass containers standardization (*Continued on page 142*)



New package design is calculated to appeal equally to the doctor, the wholesaler, retailer and public.

Stearns' medicinals . . . for a four-fold field

In designing new modern packages for its medicinals, Frederick Stearns & Co. had an unusual problem to consider. The ethical health products produced by the Detroit company must be packaged in such a manner as to meet special conditions in four different and distinct selling fields—doctor, wholesaler, retailer and the general public.

The doctor insists upon a "professional package," giving in detail the information a physician requires.

The wholesaler must have extreme visiblity and clarity in the package design as an aid to pickers who must work rapidly in filling orders.

The retailer, supplied with thousands of different packages with an increasing number designed to help him make sales, desires to meet this competition in the best manner.

The public has become educated to expect a pleasing as well as functional appearance in packaged merchandise.

With this four-fold demand in mind, Stearns, after a year of study, has developed what Dr. J. Mark Hiebert, vice-president and general manager, describes as "a clean, ethical package, which, because of its simplicity and practicality, increases the ethical stature of the medicinal contained, presents an appealing appearance acceptable to the consuming public and through the clarity of the descriptive material on the labels minimizes the possibilities of error."

The entire line is gradually being packaged in this standardized packaging form which utilizes a maximum of clean white space, a border of attractive and compelling electric blue and carefully selected clear bold type. This is a great improvement over the former package design, which used dark blue letters on a pale blue background and which presented the problem of securing a uniform combination of color shades, Dr. Hiebert points out.

Under the new packaging program, furthermore, every Stearns product follows the same pattern in presenting its label material, listing in order: (1) the name of the product, (2) its physical state, (3) strength, size or concentration and (4) ultimate use. This headline information is followed by the full formula of the product, the size of the package and the Stearns code number and signature. Directions and cautions appear on the side panels. Formerly, there was no uniform pattern in presentation of label information, with the name appearing in different places on each product. Stearns' crest appears on the top of each new package, identifying a Stearns shipment at a glance.

Early experience with the new pattern has substantiated expectations. It has been found particularly valuable for use in packaging drugs having a multiple field of usefulness such as Stearns' Neo-Synephrine Hydrochloride. The prominence given to the title of each product avoids any chance of confusing the 1% Intranasal preparation with the 1% Sterile Solution for parenteral use.

The border of blue, framing the white, makes for clarity and adaptability. The clear type used eliminates confusion. A glance tells exactly what preparation is desired.

No one individual takes credit for Stearns' package designs. A problem such as this one is discussed by a standing Packaging Committee, composed of the president of the company, the sales manager, the advertising manager and the art director. The various points of design are agreed upon cooperatively and is executed by the company's art department.





DISPLAY



3

1 The Children's Pharmacal Co. has used the same design for its counter display as it has on its family of 12 products made especially for children up to 12 years of age. According to company figures, 20% of the population of the nation comes within this age group and, therefore, the display has been designed so that the druggist may build a complete childrens' drug department around it. This idea is accentuated by the headline "Children's Drug Department" on the display itself. "Medi-Sweet," the trade name of the drugs, are accented, naturally, but any children's products can be added to round out the department. Display, Magill-Weinsheimer Co., Chicago, Ill.

2 The first of a series of four display cards covering the four seasons has been distributed by The F. & M. Schaefer Brewing Co. to all its retail outlets. The direct-color photographs feature leading New York models; the one illustrated is the winter display. The objective of the new campaign is to do a series of girl pictures in a fresh and distinctive manner but, nonetheless, with restraint. Company officials feel that they have achieved their objective with this, the first one. The second one, with the approach of springtime, will feature a lovely blonde. Display, Einson-Freeman Co., Inc., Long Island City.

3 A one-piece folding carton opens up to produce this bookshelf counter display for John Middleton's "Philadelphia Mixture." The six packets of tobacco are packaged to resemble rare old editions and the display was designed to further this illusion. A saving of paperboard is effected by making the carton a combination shipping carton and display. It is urged for use near the cash register to encourage self-service. Display created and manufactured by National Lithograph Window Advertising Co., New York City.

4 Libby, McNeill & Libby has issued a display basket to retailers to increase sales—particularly impulse sales—of deviled ham. It is printed in full color with dark blue and yellow predominating. The package itself promoted the creation of this display. Deviled ham is, necessarily, packed in a can so small that it often gets "lost" in the average canned-meat section of a super market. Since deviled ham is mainly an impulse item, sales can be greatly increased by getting the product out where the customer can see it. The smallness of the can, however, makes it difficult to stack in large mass displays—hence the basket. The display was designed to hold one full case of 24 cans and is being used extensively in hot traffic spots, such as the checkout counter, the bread rack and the top of the meat case. Display, Magill-Weinsheimer Co., Chicago.

5 Self-service for frozen foods in the postwar world seems to be the aim of all manufacturers of refrigerated cases. Here is one which, by means of a glass front, makes frozen foods just as prominent and as easy to reach as the canned goods or dry packaged items on open shelves. The mirrors are not used to show the merchandise but merely to add to mass and sales appeal of the display. The products can be reached without lifting or sliding any heavy doors and the case is designed to eliminate the need of reaching down into the refrigerator for merchandise. The manufacturer claims that this is the first case which successfully displays merchandise so that it may be seen through the glass front from any part of the store. Because of WPB restrictions, the case cannot be manufactured now but the company has conducted exhaustive tests in stores to prove the pulling power of open clear view cases. Display, Hussman Refrigeration, Inc., St. Louis, Mo.

6 Here is a display which achieves the objective aimed at by most advertisers—that of spotlighting the package in a dramatic fashion to draw the eye. The idea of using a greatly enlarged reproduction of the vitamin package itself as a vanity case and giving the display a three-dimensional effect stimulates interest in this point-of-sale merchandising. "Vitamins Plus" has always stressed the youth and beauty angle in advertising copy and this display ties in with that theme with the tag line "Helps guard natural youthfulness." The model's reflection as shown in the mirrored top does not contradict the statement. Packages of the actual product, both opened and closed, add sales value to the display. After the centerpiece has served its purpose in the window it is suggested for interior counter use. Display, Einson-Freeman Co., Inc., Long Island City, N. Y.

7 A theme for vitamins which appeals to the mother of the family on the basis of good health for her children has been adopted by Miles Laboratories for "One-A-Day" vitamins. It is a positive approach stressing the necessity for vitamins to round out the diet of a growing child. The full-color centerpiece focuses the eye on a height and weight chart which gives the normal measurements for children up to the age of 16. The two youngsters peering out from behind the chart obviously glow with health.

Thirty-five thousand drug stores all over the country are featuring this display in window or interior set-ups. The two side cards are added as background for the larger display and show slightly enlarged reproductions of the packages of three kinds of vitamins made by this company. Display, Forbest Lithograph Mfg. Co., Boston, Mass.



GALLERY



IPEAA . . . a new packaging association

The Industrial Packaging Engineers Assn. of America was launched formally at a general meeting held January 29 in the Stevens Hotel, Chicago. More than 240 members and guests were greeted by R. F. Weber of the International Harvester Co., president of the association.

The new group, which is being organized nationally, is intended to fill the special needs of the non-consumer packaging field; that is, the packaging of industrial products in particular and packing for shipment generally.

Although plans for a national convention in November must be held in abeyance, it was disclosed that there is considerable spontaneous activity toward the formation of chapters in other cities besides Chicago. One chapter is being organized in Milwaukee and others are expected to be formed in Fort Wayne, Indianapolis, Racine, Springfield, Ill., and other cities.

One of the aims of the association is "to promote education and training in the science and practice of practical package engineering" and it was revealed at the meeting that negotiations are already under way with a leading institute of technology to provide a course covering all phases of industrial packaging. Eventually, it is felt, this may result in the establishment of a testing and research laboratory and a training program that will lead to the adoption of standardized methods approved by the association for the betterment of industrial packaging.

Said Charles H. Bishop of the Angier Sales Corp., chairman of the association's membership committee:

"There is so much to be done in improving and standardizing industrial packaging that it is up to everyone to contribute in any way he can, no matter what his position may be.

The postwar job

"We have learned during the war to do a better job than we ever did before and we want to continue to do an even better job. It would be nothing short of criminal not to salvage some of our experience—to slide back into the old way. The job ahead of us in industrial packaging is worthy of the best efforts of every man present and of every future member and we want members who will give as well as take. Many of you will remember that Theodore Roosevelt once said, 'Every man owes some of his time to the upbuilding of the profession to which he belongs.' If we all keep that in mind our association is bound to be a success."

President Weber also stressed that a principal aim of the association was to give packaging its proper recognition in the engineering field.

"I think we all agree," Mr. Weber said, "that there is a real need for an organization to promote the best interests of packaging and of packaging engineers. The enthusiastic response to this meeting by so large a group of men from industry is an indication that you recognize this need. The IPEAA was organized to fulfill this necessity and its active membership is limited to industrial packaging men.

"You packaging men represent one of the most important phases of the industry. Your achievements in the war effort have been excellent and have won national recognition. You have made an enviable record in converting from peacetime packaging to the exacting requirements of the United States Armed Services.

"We intend through the IPEAA to cover every phase of industrial packaging. We also hope to give packaging its proper recognition in the engineering field.

Objectives of association

"The objectives of the association set forth a widespread program of direct benefit to industrial packaging men. These objectives, as contained in Article II of the Constitution are as follows:

"a. To further the application of good engineering practices in the industrial engineering field.

"b. To encourage and carry out investigation, research and interchange of ideas among its members and in the field of domestic and export industrial packaging.

"c. To promote education and training in the science and practice of practical package engineering.

"d. To arrange for the collection and dissemination of information relating to industrial packaging and for the presentation, discussion and publication of such data and other contributions.

"e. To provide technical facts, data and minima standards for the materials to be used for packaging and shipping.

"f. To promote the professional and economic welfare of its members.

"A number of consulting committees have been formed, each having responsibility for some essential part of packaging. These committees will include men who have made outstanding contributions in their particular fields. Many of you will be asked to serve as members.

"Here are some of the committees that will start functioning at once:

Armed Service Forces
Research
Training and Education
Specifications and Standards
Ethylcellulose and other Strip Coatings
Loading and Transportation
Palletizing
Cleaning and Corrosion Prevention
Overseas Crating
Cartoning
Wrapping
Air Cargo
Radar and Radio
Mail Order
Merchandising Appeal
Local Chapters

"As the packaging field expands in scope, additional consulting committees will be formed as required.

"The postwar period will present a striking challenge to all industrial packaging men. The tremendous advances we anticipate in radio, aviation, chemistry, mechanics and other sciences must be matched by (*Continued on page 144*)

Man appeal . . . *in packages women buy*

Some time ago a national merchandising group conducted a survey among the male population to determine their buying likes and dislikes in men's furnishings.

The final results pointed strikingly toward simplicity in packaging. Men bought when they had to buy. They didn't buy because of fancy doo-dads; when they needed an item they went into the most convenient shopping place and got it. The male buyer didn't want to wait, and he didn't want a bulky, fancy package.

Those were the ideas that resulted in a succession of new packages for a number of nationally known manufacturers of men's furnishings. Several of them came to Alan Berni, New York package designer.

The J. C. Penney Co. wanted a box that could also be used in a combination display showing six different styles of belts. The first problem for the designer was the creation of a package that would fit the demands of the customer for a non-bulky box.

But just as important was the appeal to the female buyer. Wife knows her husband needs a belt and goes to her favorite store to buy one. A colorful and appealing package is needed for this buyer, yet it must be simple and compact for the man who buys his own. The J. C. Penney belt box was designed to use laminated cellophane on a folding box. It was produced in maroon and, to facilitate rapid selling, the size and price were carried on the name panel. The price was imprinted on a perforated tab which could be torn off if the belt were to be presented as a gift.

This package is felt to embody all the necessary appeals to the various types of buyers. It also takes into consideration an important merchandising problem—that of quick sales to compensate for help shortages behind the counter.

The Commercial No-Fade Shirt Co. wanted a gift box which would appeal strongly to the feminine trade but would also attract the men. The package carries an Esquire-type illustration with decorative lettering and the No-Fade trade mark.

The package containing men's furnishings must be masculine even though the merchandising appeals directly to the women. Women like to surround their men in an aura of rugged masculinity and this desire must be adequately satisfied in the package. A gaudy creation will not appeal to the woman buying gifts for the man of the house.

This can be demonstrated in the case of the Pepperell boxes for shorts. This package uses a two-color design featuring the Pepperell trade mark designed in the shape of a badge of merit. The predominating color is a dark blue, a good masculine color for stock boxes. The Pepperell design was made usable for both folding and set-up paper boxes. The economy of space factor was also important in this creation.

One manufacturer wanted (*Continued on page 148*)

1



2



3



1—*Pipe and tobacco packages are colorful, appeal to the feminine trade but, also suggest rugged, outdoorish pipe smoker.* **2**—*Gift boxes must appeal to women yet maintain that certain masculine look.* **3**—*Men's cosmetics must avoid any "flossy" appearance and at the same time give a definite impression of good grooming as these do.*



Automats to sell frozen foods

Frozen food processors have reported that they plan to market 200 varieties of frozen foods after the war in comparison with about 75 today. Annual sales of these products are expected to reach 3,500,000,000 lbs. within five years after the peace is signed.

This tremendous growth will be fostered greatly by new lines of packaged frozen foods sold through new storage devices to aid self-service sales of such products. Such new cabinets may also influence further the trend toward size standardization in packaged frozen foods.

In the past the sale of consumer units of frozen foods has been limited by the number of cabinets and also by the inconvenience of bin-type units which required clerk service.

Postwar devices will eliminate the clerk service and the difficulty of bending over to fish out the various products a customer requests.

A new unit, called the "Frez-O-Mat", that has been developed to dispense frozen food packages just like doughnuts in an automat restaurant is suggested not only for self-service stores but as a coin-slot dispenser for frozen foods and packaged ice cream in apartment houses. Although they cannot be made now, they give an idea of what to expect postwar.

It is comprised of 42 compartments, each holding packages of a different food. It stands on a base about 3-ft. high, bringing the compartments within easy hand reach. Extra supplies may be stored in the base. A facsimile of each package appears on each small locker so that the customer may stand erect in front of the unit to make her selection, and pull open the door containing the commodity she wants. An automatic ejector turns the package over into her hand and at the same time brings another one into place ready for the next sale.

Merchandise is stocked from the front, merely by opening the door until it reaches a position which automatically releases all mechanism so that packages may be inserted until compartments are filled. As the door closes, the mechanism is again set for dispensing merchandise.

An improved model has a push button directly below each door. By pushing the button, the compartment may be released without the aid of the door. The button will also open the doors without dispensing packages.

The device is a mobile unit and may be moved to any part of the store. In addition to frozen foods, this dispenser is planned for the sale of packaged ice cream through self service.

Equipped with coin mechanism, like those in automat restaurants and in railway station lockers, the unit could be placed in apartment house basements, where the residents might purchase daily supplies without an attendant.

CREDIT: *Frez-O-Mat, Twentieth Century Marketing System, Denver, Colo*

"Whatever happened to So and So?"



Old friends meet and begin reminiscing about mutual acquaintances. "Whatever happened to so and so?" they ask. Perhaps he dropped out of sight because he moved away or maybe he just got too successful for the old gang and moved up into high society.

BURT is still very much in the packaging picture. We're still at the same place, and our continued success has not taken us out of the realm of cooperative suppliers. We still make and expect to continue to produce, large quantities of small, round, square and oval set-up boxes turned out on our own specially built equipment.

Send for samples

F. N. BURT COMPANY, INC.

500-540 Seneca Street, Buffalo, N. Y.

New York City - Philadelphia - Boston - St. Louis - Atlanta - Chicago - Cleveland Cincinnati - Los Angeles - New Orleans - Memphis - Minneapolis - Kansas City

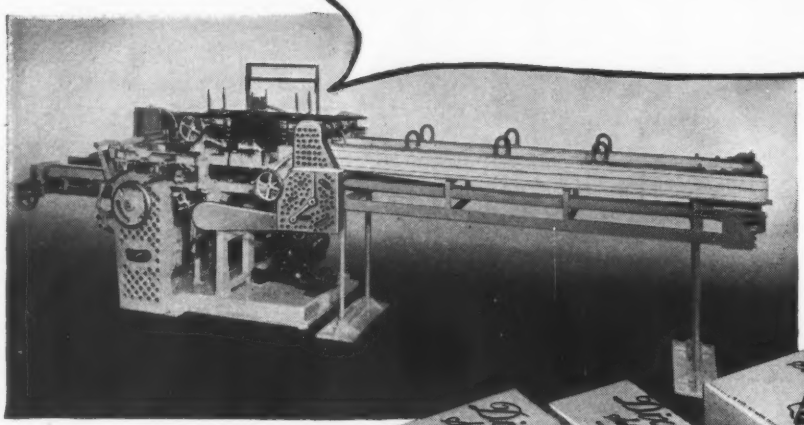
San Francisco: 216 Pine St. — Telephone EXbrook 5323

Newark, N. J.: 915 Military Park Bldg. — Telephone Market 3-0788

CANADIAN DIVISION:

Dominion Paper Box Company Ltd., 469-483 King St. W., Toronto 2, Canada

DID YOU SAY YOU WANT ADJUSTABILITY?



...just take a look at this!



ALL WRAPPED on a single FA machine

The largest package in this group is 13″ x 7″ x 3″; the smallest, 7″ x 2″ x 2″. All eight packages are wrapped on a single quickly-adjustable FA model, which we recently built for the Grocer's Biscuit Company.

The machine applies printed waxed-paper wrappers, cut from a roll, and registered by Electric Eye, at a speed of 30 to 60 packages per minute, depending on size. Changes from one size to another are easily made by hand-wheel adjustment.

In addition to adjustability, our machines offer practically unlimited scope in the choice of wrapping materials. This means you can readily take advantage of new developments that are taking place in the wrapping materials field, thereby obtaining the most effective selling features for your package. *In short, we aim to build machines that can keep pace with modern packaging trends.*

Write for our booklet "Sales Winning Packages"

PACKAGE MACHINERY COMPANY • Springfield 7, Mass.

30 Church St., New York 7 • 111 W. Washington St., Chicago 2
101 W. Prospect Ave., Cleveland 15 • 443 S. San Pedro St., Los Angeles 13
32 Front St., W., Toronto 1

ARMY E NAVY

PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

Corrosion control . . . principles of packaging

by C. M. Rhodes* and G. F. Chase†

The protection of metal parts against corrosion during shipment is a packaging problem by now too well known to require any restating. But in considering some of the new corrosion-preventive packaging materials it may be well to re-examine the principles of protection.

The most important corrosive agent is water in liquid or vapor form, although salts, oxygen and other substances may play a part in specific cases. Although the chief causes are usually known, complete protection may be a difficult problem to solve.

For practical considerations, a packaging method that eliminates the contact of free water with the metal surfaces will usually prevent corrosion. This appears simple, but it is complicated by the fact that even in a completely moistureproof and water-impervious enclosure, condensation of water vapor from the enclosed air may leave a film of moisture in contact with metal surfaces. In a moisture-vaporproof and waterproof enclosure, the effect of the enclosed oxygen is limited; the water in vapor form is relatively inactive, but becomes active when condensed on a corrodible surface.

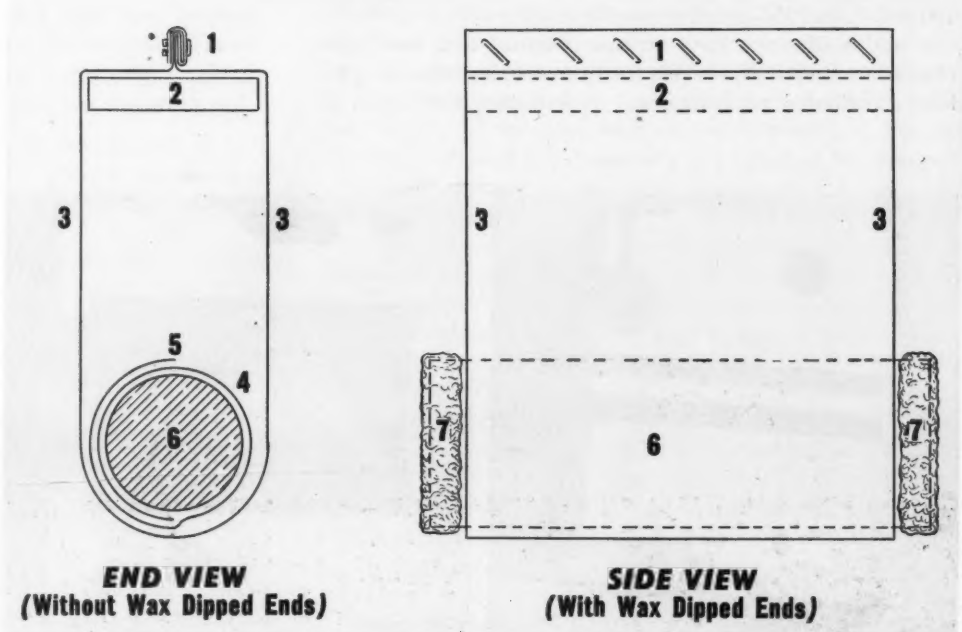
* Technical Director, Rapinwax Paper Co., Minneapolis, Minn.
† Manager, Industrial Division, Rapinwax Paper Co., Chicago, Ill.

With these considerations in mind, the following basic requirements are set down as essential to the prevention of corrosion in shipping metal parts and equipment:

1. Only non-hygroscopic materials should be in contact with corrodible surfaces.
2. The enveloping packaging structure should contain a continuous moisture-vapor barrier that will prevent or strictly control the entrance of moisture.
3. Where moisture vapor included at time of enclosure may be sufficient to condense and cause corrosion, and where the barrier may not be effective enough in resisting the penetration of moisture vapor during the package life, a moisture-absorbing material should be included within the enclosure to reduce the moisture-vapor concentration to a safe value.

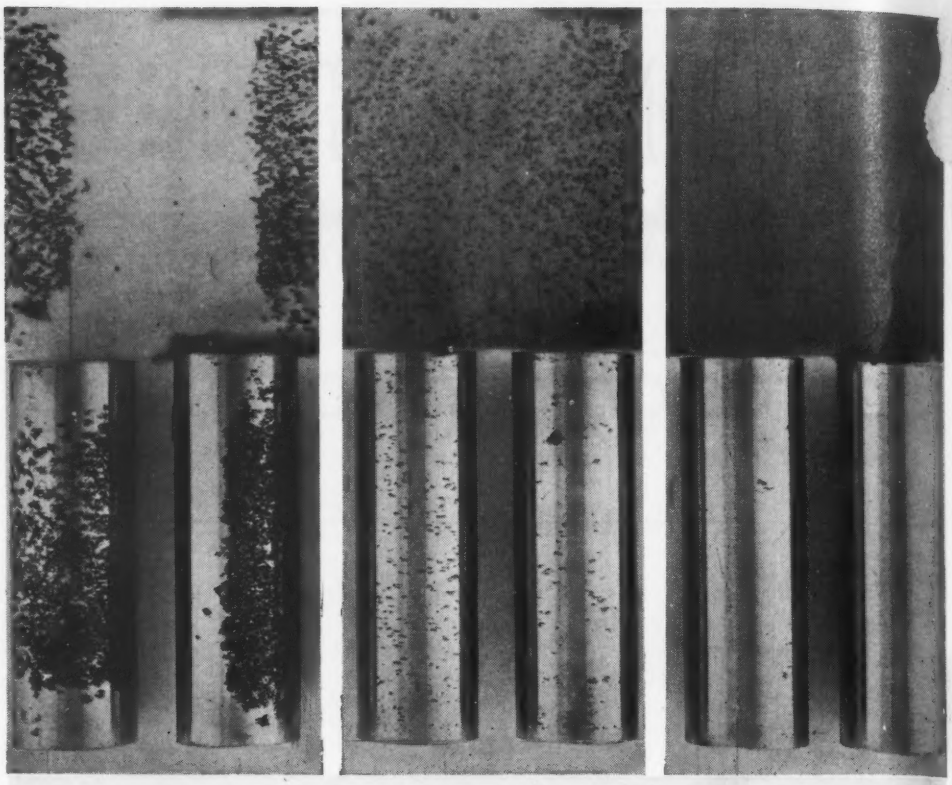
Fig. 2 illustrates the results of tests showing the effect of hygroscopic and non-hygroscopic materials in contact with metallic surfaces under controlled conditions.

Sling corrosion tests were made on 10–20 CR steel cylinders, centerless ground to 10–15 micro-inches, with the bare metal surfaces of the cylinders in contact with various types of wrapping materials. Fig. 2 shows the results of tests with



1—Illustrating sling corrosion test: (1) Stapled joint. (2) 1-in. wide suspension bar. (3) Wrap material under test (as sling). (4) Wrap material under test as cylinder wrapper. (5) End of wrap (unsealed). (6) 3-in. by 1-in. 10–20 CR steel centerless-ground cylinder. (7) Microcrystalline wax dip over ends of wrap and ends of the cylinder.

2



A
Plain neutral unwaxed glassine.

B
Glassine with very light coating of paraffin wax.

C
Kraft paper, heavy moisture-proof lacquer coating.

2—Showing results of sling corrosion tests on seven different wrapping materials. Note corrosion or lack of corrosion on wrapping material (above) and two cylinders exposed in that material (below), in each photo.

seven different materials (*A, B, C, D, E, F and G*). In each case, a section of the wrapping material is shown at the top and two of the cylinders which were exposed in that material directly below.

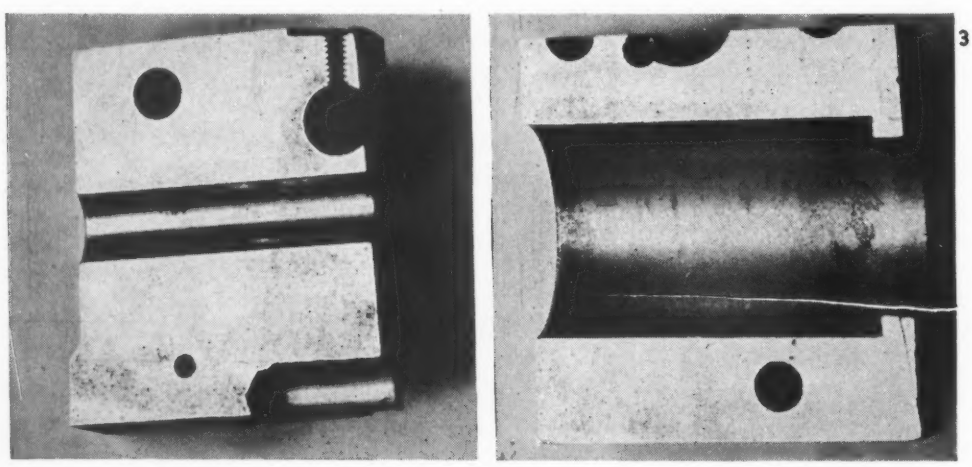
In making these tests, the contact surfaces of the wraps were sprayed with aqueous mold suspension and conditioned at 100 deg. F. and 95% relative humidity for 72 hours. The cylinders were wrapped with $1^1/_2$ turns of mold-treated material, unsealed but overlapped parallel to the axis of the cylinder and wax dipped at the ends. Cylinders were suspended in slings of the wrap material and exposed 72 hours at 100 deg. F. and 95% relative humidity.

A and *E* illustrate the corrosion obtained with two types of cellulose sheetings, wherein the hygroscopic nature of cellulose contributes to corrosion. *B* indicates the improvement against corrosive action obtained by a very light film of paraffin wax as a moisture-vapor barrier on the *A* sheet. *C* and *D* show the improvement gained when greater amounts of organic moisture-vapor barrier materials are placed between the hygroscopic cellulose and the metallic surfaces.

F and *G* show the relative freedom from corrosion when non-hygroscopic metallic foil barriers are placed next to the steel surfaces.

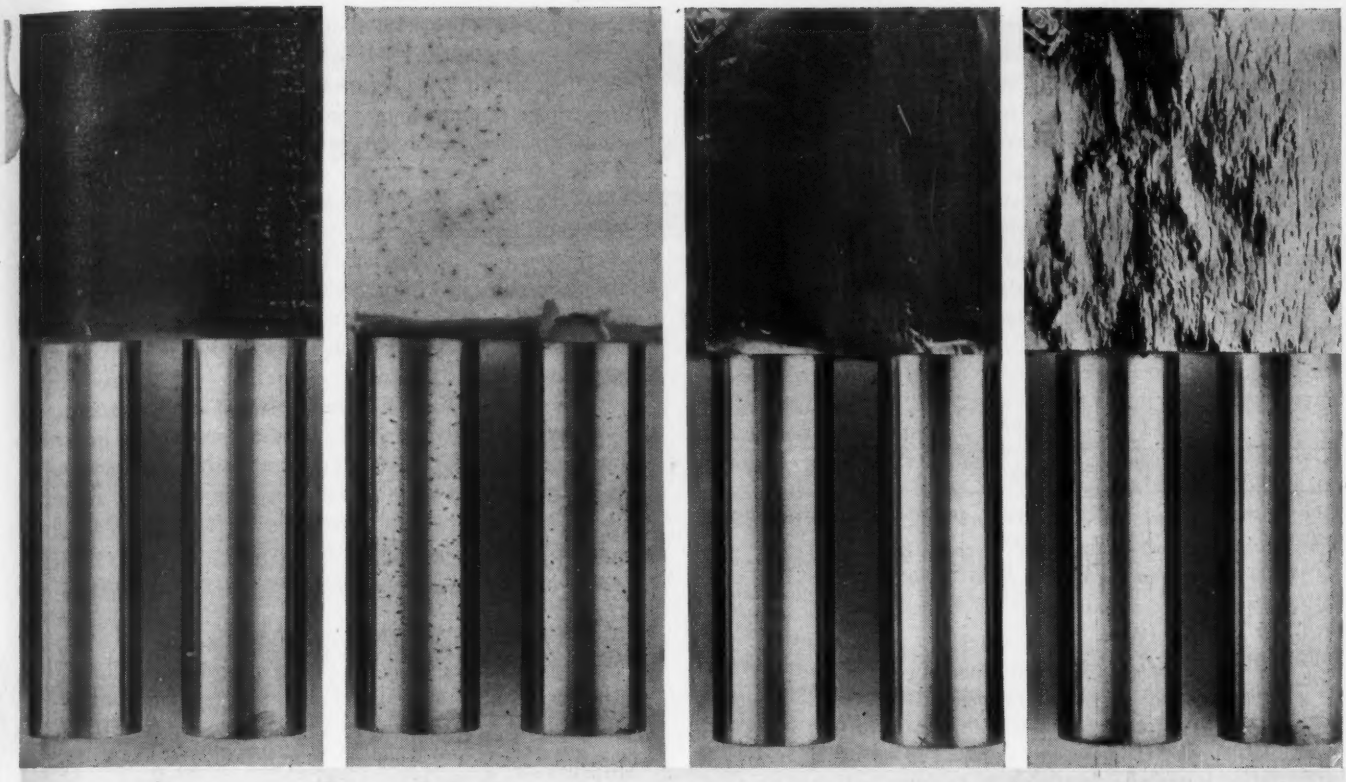
It is to be noted particularly that Fig. 2 demonstrates the corrosive effect obtained when significant amounts of moisture are present on the metallic surface. Here the test method used does not hermetically seal the test cylinders from the high humidity atmosphere.

Fig. 1 illustrates the component parts involved in the sling corrosion test and demonstrates that the wrapper joint



3

3—Two sectional samples taken from the same cast iron valve body, after 21 day cycle test in which sample at left was Method II wrapped, that at right Method I-A wrapped. Fine-ground surface of sample at right shows the greater amount of corrosion.



D Grade C, Type II greaseproof paper, heavily wax coated.

E Whatman No. 40 filter paper.

F .001-in. zinc foil laminated to kraft.

G .001-in. aluminum foil laminated to kraft paper.

parallel to the cylinder axis is a simple overlap of the wrapping material and not a sealed seam or joint.

Actual personal observation and interpretation under field and laboratory conditions have led to these conclusions regarding the protection of corrodible surfaces under conditions of present-day military shipment:

1. Among organic materials, reliance on petroleum hydrocarbons (particularly in the range of C_{16} to C_{32} for protective coverings) usually gives the best practical organic protection available.
2. The hydrocarbon protective covering or preservatives may be supplemented by chromate, a phosphate and other substances variously introduced as corrosion inhibitors.
3. Physical exclusion of corrosive elements is the essential factor in protection against corrosion. Therefore, packaging studies must include examination of both inorganic and organic barriers. Proper consideration must, of course, be given to the available materials, labor and equipment.
4. Laboratory tests, controlled long-time exposure tests and controlled foreign shipments have indicated the following:
   a) According to the results obtained by Method I, where reliance is placed largely on petroleum preservatives in an unsealed wrap, the protection is not as effective as that obtained by Method I-A, where the lubricants are protected by a sealed wrap.
   b) Method II, where a desiccant is used and where protective barriers receive greater consideration, is also superior to Method I.

A comparison of the protection obtained with Method I-A and Method II is made in Fig. 3. These pictures illustrate that the maintenance of dry atmosphere in the package results in superior protection against corrosion.

The two sectional cast-iron valve bodies shown in Fig. 3 were given a 21-day cycle test, each cycle consisting of three hours at −10 to −15 deg. F. and 21 hours at 100 deg. F. and 97 to 99% relative humidity. The sample at right had a Method I-A wrapping structure, including treatment with AXS-674-type oil preservative; a USA 100-15 Grade C, Type 3 wrap next to part; a USA 100-15 Grade C, Type 1 wrap as overwrap, and an AXS-1015 wax dip over the overwrap. The sample at left had a Method II wrapping structure, including no preservative oil but a wrap of AXS-1322 aluminum foil-kraft heat-sealed bag, with the proper amount of silica gel included as required with AXS-1322 Type I materials.

The photographs show the condition of the valve bodies at the end of the test, with obvious corrosion of the fine-ground surface of the sample at right (Method I-A wrapped). The two sectional samples were taken from the same valve body.

The Method II package of Fig. 3 (left) meets the three basic requirements mentioned above as essential to the prevention of corrosion. The maintenance of a dry atmosphere around metal parts is important in that it allows greater flexibility in the selection of oils, lubricants and other materials in the package itself.

It would be outside the scope of this article to consider all possible combinations of organic and inorganic wrappers and packaged contents. Our discussion is intended to suggest principles of protection and our examples are illustrative rather than all-inclusive.

Among organic materials, petroleum-derived waxes are effective and economical moisture-vapor barriers, when present in heavy continuous films and supported on such

mediums as cellulose (in the form of paper, regenerated cellulose or cellulose acetate) and cloth. The petroleum waxes contribute the protection and other materials the mechanical support. Materials that are merely greaseproof alone contribute very little to the protective combination.

Metal sheet or foil offers the highest degree of protection against moisture-vapor transmission. We may consider the following metals in the proper form as being suitable for forming into protective packaging materials of the non-rigid type: (1) Aluminum, (2) lead, (3) zinc, (4) tin.

We must immediately eliminate "tin foil" from the above, since tin foil is not now available commercially. Thus, we are reduced to consideration of aluminum, zinc and lead as materials which are prepared in foil form most commonly. Preparing a balance sheet among these materials, we find the advantages and disadvantages in the order listed in Table I, at left.

TABLE 1

	Advantages	*Disadvantages*
Aluminum Foil 0.001"	1. Low weight per unit area 2. High physical strength 3. Chemical inertness of exposed surface 4. Price 5. Availability 6. Uncontaminated surface in commercial grades 7. Non-toxic 8. Relative freedom from pinholes in commercial grades	1. Relative stiffness 2. Reflectivity* (from camouflage point of view)
Lead Foil 0.001"	1. Good flexibility and stretchability 2. Chemically inert 3. Price 4. Availability	1. High weight per unit area 2. Low physical strength 3. High incidence of pin holes in commercial grades 4. High reflectivity* 5. Toxicity 6. Contaminated surface on commercial grades
Zinc Foil 0.001"	1. Low weight per unit area 2. High physical strength 3. Good stretchability 4. Mold inhibition	1. Stiffness 2. High cost 3. Scarce as to availability 4. Firm adhesion of oxidation products to metallic surface protected anodically 5. High reflectivity*

* This disadvantage can be overcome through the use of suitably colored lacquers or coatings.

Due to low availability of high-purity zinc, we must eliminate consideration of it on this ground in spite of certain advantages. It is apparent that the presence of petroleum oils is necessary in working with zinc foil, due to the necessity of fluxing the corrosion products of zinc, which otherwise are deposited in a form such as to be approximately as objectionable as rust itself.

Because of availability and suitable characteristics, the discussion of relative merits must at present be limited to aluminum and lead foils. We tabulate herewith a comparison of strengths of these two materials of the same caliper:

Comparison of aluminum and lead foils, caliper 0.001 in.:	*Aluminum*	*Lead*
Tensile Strength (lbs./in.) M.D.[1]	10.7	3.0
A.M.D.[2]	9.2	3.2
Tear Test M.D.[1]	33.0	20.8
A.M.D.[2]	47.2	21.2
Mullen Test	23.0	11.4

[1] Machine Direction.
[2] Across Machine Direction.

From the considerations of strength, it is apparent that aluminum foils of equal thickness can be depended upon to give greater strength to the wrapping than lead. Thin foils, both lead and aluminum, are preferably used with a supporting sheet. This is commonly done by combining the foil with such materials as regenerated cellulose, polyvinyl butyral and asphalt laminations with kraft paper and cloth. Here the reliance (for strength) is largely on the supporting medium.

For strong heat-sealing coatings on the surface of lead, the selection of coatings is limited to those materials which can be built up to supplement greatly the orignal strength of the lead itself.

As a result of the sealing application requirements of lead foil, with the attendant narrow selections of materials and more involved conversion to achieve adequate sealing strength, the composite lead structure is more expensive and more difficult to produce. Aluminum foil, on the other hand, can be produced with adequate sealing strength by a wider variety of easily applied coatings, which are not limited by the tensile strength of the foil itself.

Comparative tests on completed packages utilizing aluminum foil combinations under cycling test and "rough handling" conditions show these barriers capable of withstanding the highest load limits involved in military packaging. These tests consider the ratio of cube of contents to square area of surface and the effectiveness of the heat-sealing closures, as well as the creased moisture-vapor transfer rate "cup" tests (per specifications JAN-P-13 and AXS-1322).

It is apparent that the experience gained by packagers in meeting military requirements, particularly those involving long-time protection of corrodible surfaces, will have a definite effect on the design of postwar packages destined for long-distance shipment and possible long-time storage in warehouses' and on dealers shelves.

New heat sealer . . . for Saran and other films

A heat-sealing machine which combines the principles employed in jaw- and rotary-type sealers will soon be put into production by a Detroit machine tool manufacturer, after exhaustive tests on a variety of plastic film and foil materials.

This new type of heat sealer, developed by Dow Chemical Co., was specifically designed to handle Saran in a conveyor-belt operation with close temperature control, but laboratory and commercial tests have indicated that its usefulness is extended to all types of plastic film and foils which are capable of being sealed by heat.

Because of the long-felt need for a high-speed sealer capable of handling Saran, the new machine has aroused unusual interest. Through the cooperation of the Army Air Forces, the pilot model recently was put through tests at a Midwest aircraft plant. The report found the principle of operation to be sound, although recommending certain changes in the controls. These changes are now being made and the manufacturer states that regular production of the machines will soon be started.

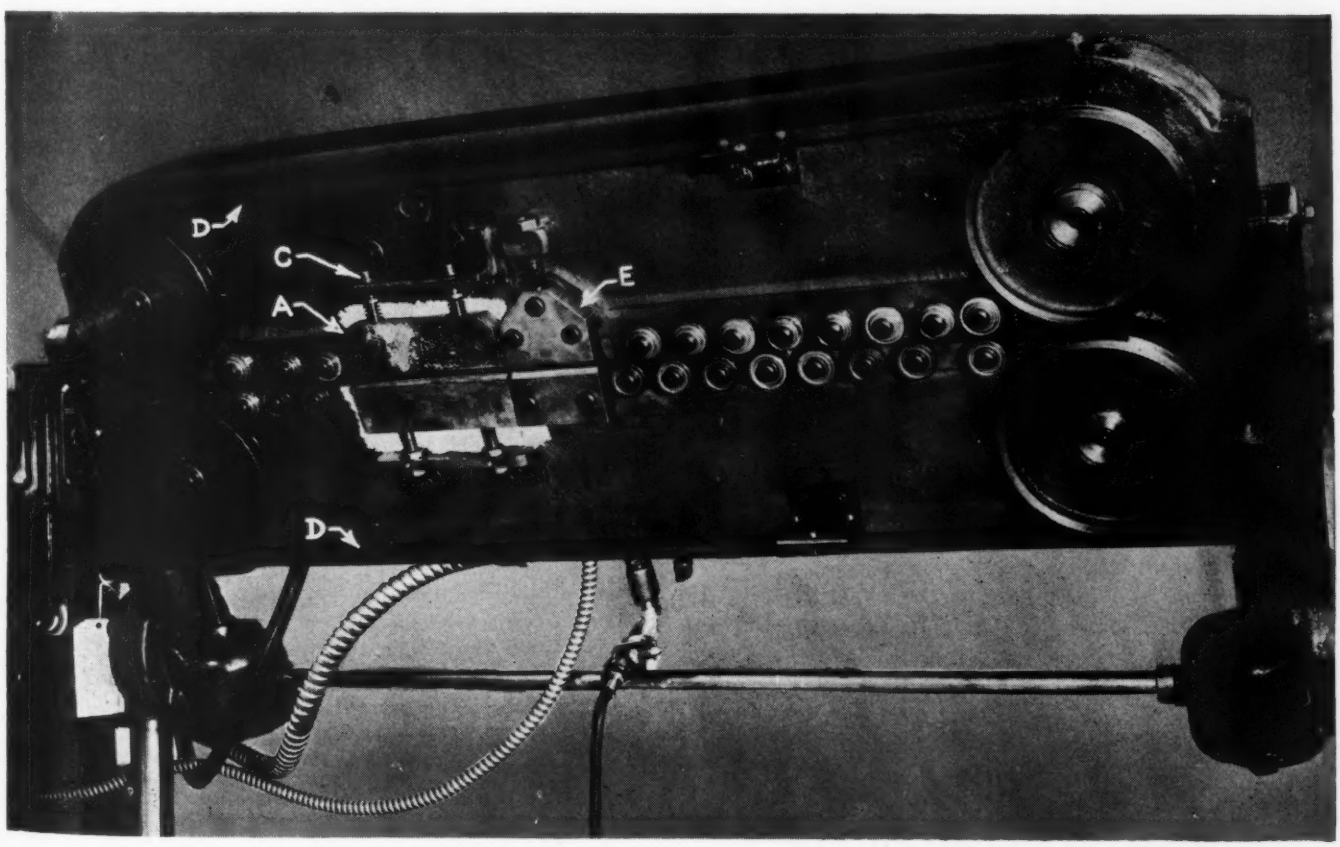
The machine offers a sealing speed of from 10 to 38 ft. per minute, subject to control of the operator; close temperature control for all materials which have critical temperature ranges and an adaptability as to size which suits it to a wide and varied field of usefulness.

The machine was originally designed to operate in synchronization with a conveyor belt. Plans now include a so-called portable or table model to meet small packaging requirements and a traveling model in which the sealing unit will operate on an overhead frame or carrier as it completes the closure. Emphasis in production is being placed first on the table model.

The principle of operation is simple. The film to be sealed is supported between two thin metal conveyor belts which carry the film through consecutive heating and cooling zones before it is released. Heat is applied by two self-aligning heating bars that conduct heat through the metal belts. The cooling zone consists of two opposed cooling bars, which immediately follow the heaters. Water was first used for cooling but finned bars cooled by air are now being employed.

The film is held firmly by the metal conveyor bands while

1—Photo study of the under side of sealing head on the original experimental model showing the principles involved: A—heating shoes; C—spring-mounted support for shoes; D—metal belts; E—cooling shoes.



it is being welded by the heating bars and the pressure is maintained while the sealed film is being cooled. This process is said to eliminate shrinkage or sticking, which are among the major difficulties frequently attending this type of operation when conventional methods are employed.

Temperature control

Of equal importance with the necessity of maintaining pressure during and after the sealing operation is the factor of temperature control, particularly in the case of Type-M Saran film.

This film shrinks rapidly when exposed to elevated temperature. This shrinking can be prevented if a slight resisting force is applied. This, coupled with the sharp melting point of Saran, makes these features of pressure and accelerated temperature control of prime importance.

Close control is accomplished in the new sealer by a sensitive temperature-proportioning controller which is said to hold heater bars within plus or minus 1 deg. F. The heaters are capable of adjustment to any temperature up to 500 deg. F.

The controller operates on electronic principle, registering from iron-constantan thermocouples, installed near the heater-bar faces. A double-pole, double-throw thermocouple switch enables the operator to check the temperatures of either heater bar individually. A rheostat is coupled in series with heater bars to balance out any difference in temperature that might develop. This permits heat of equal intensity to be applied to each side of the film.

Maintaining pressure

Pressure is maintained by manipulating tension on the springs which hold the faces of the heater bars together. The bars themselves have self-aligning features which keep them even at all times, thereby insuring a flat, wide seal.

The sealer is powered by a $^1/_4$ h.p. electric motor activating two of the four large, flat wheels which carry the steel sealing tape in two circuits through the heater unit. The two endless belts come together at the beginning of the sealing cycle, grasp the film to be sealed between them and carry it through a succession of six rollers, staggered to equalize pressure of the belts on the material as it comes to the heating unit.

2—First production model, showing how synchronized conveyor belt carries the package through the sealer.

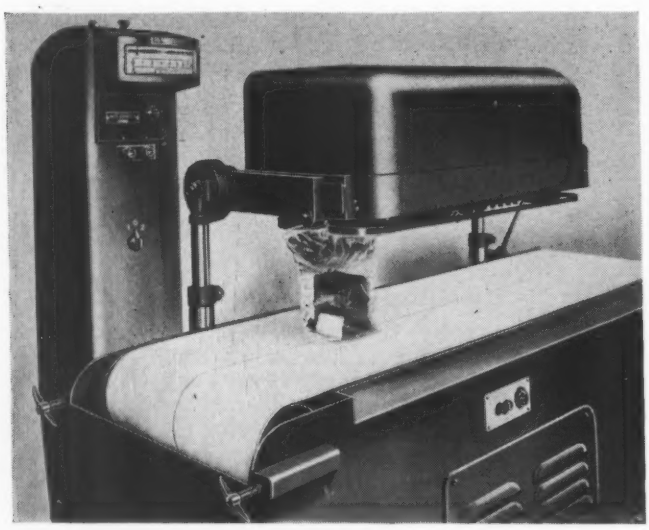


TABLE I

Material	*Type of Weld*	*Belt speed (ft./-min.)*	*Tensile strength of weld (lbs./linear in.)* Max.	Avg.	Min.
Saran Type M 225 gauge	Edge or fin	15	10.8	7.9	5.5
Saran Type M 225 gauge	Edge or fin	32	9.7	8.3	5.5
Saran Type M 225 gauge	Slip sheet	15	8.5	6.7	4.6
Saran Type M 225 gauge	Slip sheet	32	7.7	6.2	4.2
Pliofilm Avg. thickness 0.0040	Edge or fin	15	8.5	7.0	6.5
Pliofilm Avg. thickness 0.0040	Slip sheet	15	7.5	6.7	6.0
Koroseal XP 1881	Edge or fin	25	7.50	7.20	6.75
Koroseal XP 1880	Edge or fin	25	14.12	13.70	13.06
Polyethylene 1 mil.	Edge or fin	25	1.62	1.48	1.19
Polyethylene 2 mil.	Edge or fin	25	2.81	2.65	2.56
Polyethylene 3 mil.	Edge or fin	25	4.06	3.86	3.69

The belt carries the sealed film along through the cooling zone and as it completes its circuit it travels between another longer set of staggered rollers, thereby maintaining pressure until the seal has thoroughly set.

Conveyor model

In the conveyor models, a moving conveyor belt is synchronized with the belt in the sealing unit so that the package to be sealed moves along with no downward tug on the material. The sealing unit can be raised or lowered from a minimum height of 1 in. to a maximum of 18 in., and can be tilted from parallel to 90 deg.

The faces of the heating units are so designed as to permit greater heat concentration in the center of the weld area. This gradient seal is said to have greater strength.

Sticking, one of the hazards of rotary sealer operation, is prevented by using wiper-type oilers of heavy felt, mounted on brackets. This arrangement wipes the belts clean and at the same time provides a slight amount of lubrication, necessary for efficient operation.

Data on the speed and strength of seal, obtained in the recent tests on various materials, are given in Table I. All tests were within Government specifications.

In all cases, lap-type seals were found to have strengths nearly double those of the fin-type seals. The test further revealed that on Saran, Pliofilm, Koroseal and polyethylene fracture takes place next to the weld. Only a few of the tests revealed a parting of the material at the weld.

CREDIT: *Sara-Sealer machine, manufactured by Sav-Way Industries, Detroit.*

1



1—Crate-top coating may be applied either by spraying or manually by a squeegee, rake or trowel. Spray operates direct from shipping drum.

New asphalts . . . for coating and sealing

For centuries, man has known asphaltic materials as among the best waterproofing substances offered by nature. Modern science and research have added solvents, fillers and plasticizers to basic asphalts, developing products to meet specific needs. Asphalt is a low-cost material that, until the war, had been virtually neglected in the packaging field and much has had to be learned in its compounding to produce materials giving reliable and satisfactory performance.

A chemical company, producer of the dehydrating agent silica gel, sensing the need for certain new products to fit specific needs brought about by changes in Army and Navy packaging requirements, has recently perfected three "custom made" asphaltic compounds for export packaging.

The three asphalt compounds are (A) for forming moisture barriers; (B) for moisture and waterproof seals on all types of waterproof paper: (C) a crate-top coating to prevent water penetration through the tops of fully sheathed crates. It is felt that products such as these hold the answers to many of the problems which the packaging engineer must face not only at the present time but postwar as well.

Material "A," applied by spray coating at room temperature, produces a Method I-A carton pack conforming with the U. S. Army Ordnance requirements when properly applied. It has a base of high quality air-oxidized asphalts, scientifically blended with inert fillers, solvents and plasticizing agents. It dries rapidly to a tough, flexible coating which is said to give good performance results over wide ranges of temperature.

The application of the material is extremely simple. A coating approximately $1/16$-in. in thickness is sprayed on the carton or box, the open seams and corners of which have been sealed with gummed tape. The package is placed on a sheet of paper during the spraying operation and this sheet is used as an overwrap on the package to facilitate ease in handling and to prevent blocking. The overwrap adheres to the asphalt coating, forming a kraft-asphalt-fibreboard lamination which is generally moistureproof.

The softening point of the cured coating is above 180 deg. F., which is of particular importance at this time when so much equipment is being shipped to the South Pacific. In this theater of war, temperatures have frequently been recorded in excess of 160 deg. F. in field storage warehouses and in holds of ships. The material, therefore, affords better protection for these shipments than wax with softening points around 145 deg. F.

This material also is said to have very good low-temperature characteristics. It is stated that it does not flake or separate from the paper at −20 deg. F., when subjected to an impact of a $1/2$-lb. steel ball dropped from a 6-in. height.

One gallon of this asphaltic compound covers 25 sq. ft. with a $1/16$-in. coating and the cost is said to be less than 2 cents per square foot. This is from 25% to 50% of the cost of materials generally used in making Method I-A packs. Spraying can be done by semi-skilled labor with standard spraying equipment which is neither expensive nor complicated. Viscosity is controlled at the point of manufacture to spraying consistency for normal room temperatures and a freshly sprayed coating reportedly will not slump or flow on a vertical surface.

The material has a wide variety of uses. It adheres to practically any surface and its moisture-vapor transmission rate is said to be well below 0.25 gram per 100 sq. in. per 24 hrs. These characteristics permit its use for moistureproofing the taped seams and openings of fully equipped combat tanks, Signal Corps automotive trailers, power unit freight cars and other similar units, and for water-proofing domestic cartons for export shipment.

Two standard types of equipment are used for applying the material: pressure tanks of the bottom outlet type and electrically operated barrel pumps powered by fractional horsepower motors fitting on the shipping drum. Both pieces

of equipment force the asphaltic compound through a $^3/_4$-in. material hose to a spray gun.

Experience gained through the shipment of war equipment and material has proved that packages protected with case liners arrive in far better condition than those shipped without.

Sealing materials used in the manufacture and closing of case liners, capable of giving complete protection against moisture and water, should (1) produce a package which will stand submersion under water without damage to the contents and (2) consistently produce perfect seals with heavy waterproof paper under actual packaging conditions. To accomplish these ends, the sealing compound must make a moisture and waterproof seal on all types of waterproof paper, including crepe or crinkled paper, and such heavy waterproof papers as L-2, H-1 and E-1. No matter how waterproof the paper used in making a case liner may be, the efficiency of the case liner itself is limited to the efficiency of the sealing compound used to make the seams and closures.

Material "B" is a heavy-bodied asphaltic compound which is applied in a ribbon 1 in. wide by $^1/_8$ in. in thickness. This is said to fill completely all openings and channels along the seams and closures of all types of waterproof papers, including creped and crinkled papers, forming packages capable of withstanding submersion under water without leaking.

The material, it is said, maintains a strong waterproof bond at sub-zero temperatures and, after setting, will not flow at temperatures as high as 180 deg. F.

The sealing compound can be applied with a caulking gun, which can be filled directly from the shipping drum by a hand loader pump, or by a flow gun fed from a pressure tank or a motor-driven barrel pump. The mechanical application of the sealer in ribbon form has the advantage, over brushing and similar methods, of speeding up production at a great economy in material and labor.

The choice of equipment depends upon the specific problem involved. Where a great number of similar types of packages are handled on a production line, a pumping unit with a high volume output can be used to best advantage. A low-cost pumping unit, capable of supplying several flow guns, is available which can be mounted directly on the 55-gal. shipping drum. This pump is powered by a fractional horsepower electric motor.

Where the volume of the production line is not large and where the need is intermittent rather than regular—and especially if air pressure of 100 lbs. per sq. in. is available—a pressure tank is very satisfactory. Pressure tanks must be of the bottom outlet type and the material hose of 1-in. inside diameter should be as short as possible and tipped with a $^1/_2$-in. whip end to facilitate ease in handling.

If the variety of packages is great and the volume comparatively small, the hand caulking gun is generally preferred.

The sealing material can be used to seal the openings at corners, between flaps and along seams of water-resistant fibreboard shipping containers. When properly applied it makes such containers completely waterproof and they will withstand successfully rough handling, extremes of temperatures and submersion under water.

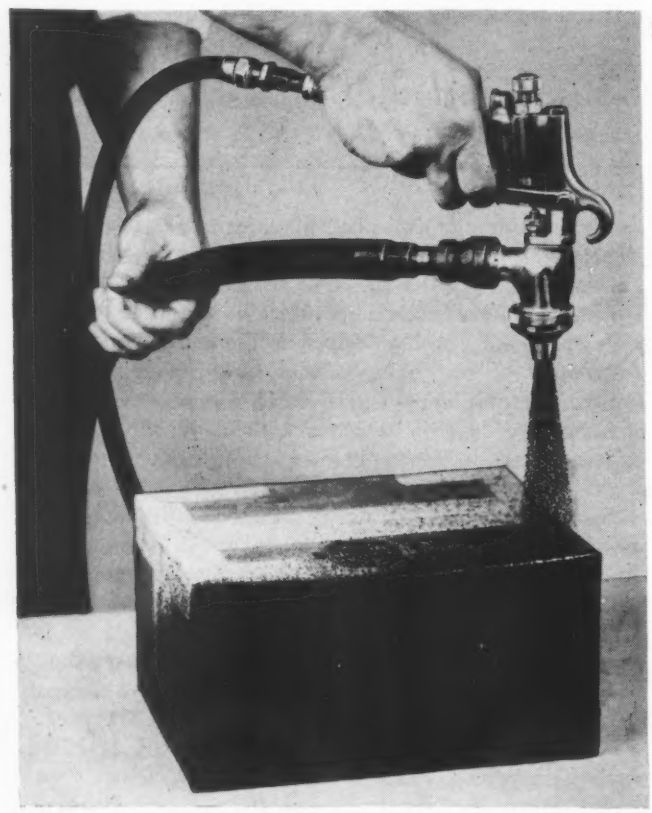
The material can also be used to seal the joints in cleated water-resistant plywood boxes; the joints in nailed wooden crates and boxes, the panels of which are lined with waterproof paper and for many other applications where cracks and openings are to be sealed against the penetration of moisture.

Years of shipping experience have demonstrated conclusively that crated materials arrive in superior condition when the tops of fully sheathed crates are covered with a waterproofing material which prevents the penetration of water.

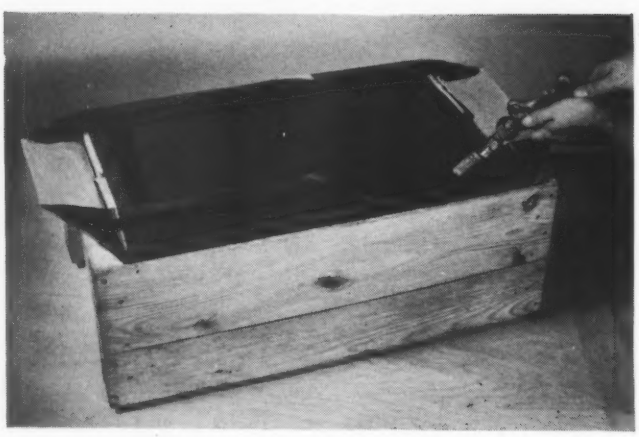
Numerous methods and various products, including waterproof paper and roofing cement, have been used on crate tops to prevent water penetration with varying success. The Army Ordnance Dept. found that better protection was needed, particularly for crates that had to be shipped on flat cars or be stored outside. The result was Specification AXS-1231 last July covering "Crate-Top Coating Materials, Bituminous." The manufacturers' research engineers cooperated with the Ordnance Department Testing Laboratory, and produced the crate-top coating described here.

Most crate tops are made of green lumber. The moisture content of green lumber used for (*Continued on page 146*)

2—Asphaltic compound is sprayed $^1/_{16}$-in. thick on small packages, immediately overwrapped with kraft paper to form an effective moistureproof lamination. 3—Heavy-bodied asphaltic compound is applied in ribbon 1 in. wide by $^1/_8$ in. thick to seal seams and closures of the waterproof case liner. Package withstands submersion tests.



2



3

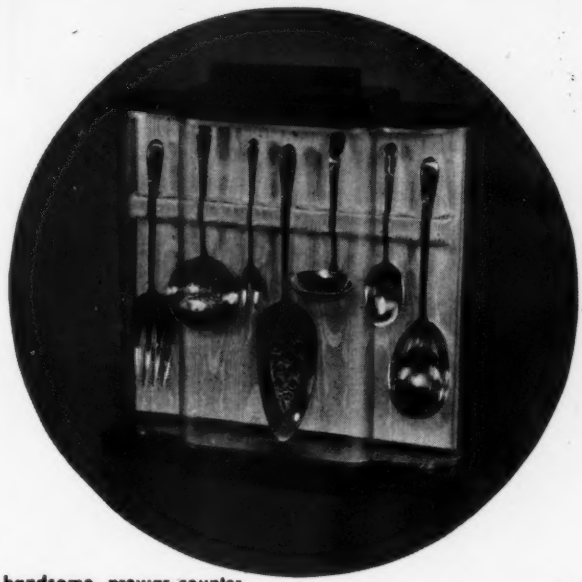
Eye Catchers...

for Tomorrow's Open Display

Essential war needs take entire current production of Eastman Acetate Sheet

TRANSPARENT PACKAGES—miniature showcases—are one answer to your postwar merchandising problems. In packages of Eastman Acetate Sheet, products will get all the benefits of open display . . . plus full protection against shopwear and handling.

Eastman Acetate Sheet can be used alone or in combination with other materials such as cardboard, wood, metal, and molded plastics. Until the war is over, of course, capacity production of Eastman Acetate Sheet must be devoted to essential war needs. When civilian production again is resumed, Eastman Acetate Sheet will be supplied in sheets and rolls, in Clear Transparent, Matte Translucent, and Colored Translucent. For more detailed information concerning postwar applications of Eastman Acetate Sheet, write to the Chemical Sales Division, Eastman Kodak Company, Rochester 4, N. Y.

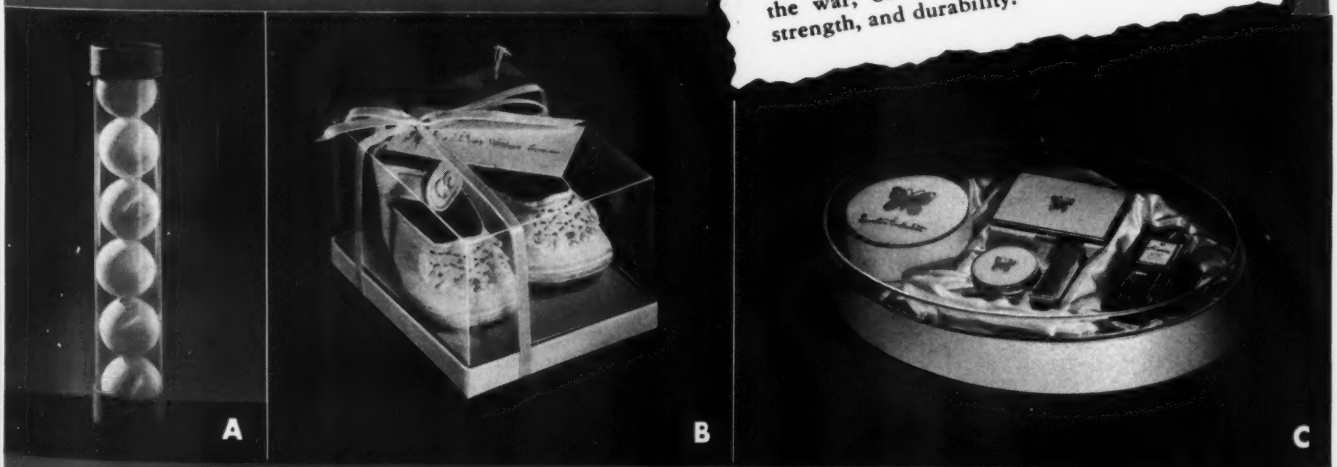


A handsome, prewar counter displayer with a curved face of Eastman Acetate Sheet.

AN OPEN INVITATION—Package designers and members of their staffs are always welcome at the Kodak Packaging Laboratory. There, they can experiment in fabricating Eastman Acetate Sheet . . . learn how to take full advantage, after the war, of this versatile material's beauty, strength, and durability.

EASTMAN ACETATE SHEET

ATTRACTS • PROTECTS • SELLS



A. The cylindrical shape and perfect transparency of this package suggest many postwar uses . . . either "as is" or in a modified form. B. Picture one of your postwar products in an eye-catching package built of sparkling Eastman Acetate Sheet. C. What better way to display related small articles or a single luxury item than in a miniature showcase like this?


Topbrand
PRODUCTS
NO OTHER CONTAINER

MY PRODUCTS? OF COURSE THEY'RE PACKED IN CANS!

CANS ARE SO TROUBLE-FREE!

Cans are safe—no breakage, no light-spoilage . . . and they're tops for shipping, storing and display

● "Take it from me, a manufacturer...and I'm sure I can speak for retailers and consumers, too...we all prefer products in *cans.* Here's why!

"Steel-and-tin cans don't break, crack, split, or tear. And because they're light, compact . . . cans are easy and economical to pack, ship, handle, store, display.

"Cans give products lots of sales appeal. Their smart and brightly colored labels (which can be lithographed right on the cans) attract attention, make brand recognition easy, help sell goods. And cans protect product quality...keep out air, light, dirt.

"I'm thoroughly 'sold' on products in cans. Retailers are, too. And so are consumers. It'll be a great day for my industry when there is an unlimited supply of cans again!"

DO YOU KNOW THESE

5 MAJOR REASONS

Why Consumers Prefer Goods in Cans?

1. Cans don't break, crack, split, tear.
2. Goods in cans keep better, longer.
3. Cans prevent air- and light-spoilage.
4. Cans are more convenient.
5. Cans are more economical.

NATIONAL AD CAMPAIGN TELLS STORY OF CANS TO PUBLIC

Ten national magazines and Sunday supplements coast to coast carry more than 30,000,000 printed messages each month to the families of America, telling them of the many advantages of the steel-and-tin can.

CAN MANUFACTURERS' INSTITUTE, INC., NEW YORK

PROTECTS  LIKE THE CAN



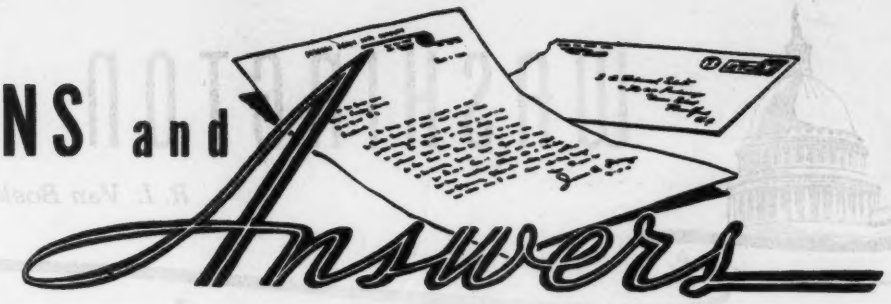
E-JECT-O, drain opener manufactured by the United Gilsonite Laboratories, Scranton, Pa., has a terrific attraction for moisture, yet economy demands it be packaged in unsoldered cans. So, it is packaged in Crown cans — because, after repeated tests, Crown lap-seamed cans outperformed the field . . . proved the perfect barrier against dampness. Thus, E-ject-o retains its potency, assures customer satisfaction. Making cans that mean satisfaction to you, to your customers and *their* customers is Crown's way of doing business.

★ ★ CROWN CAN ★ ★

INDEPENDENT AND HELPFUL

CROWN CAN COMPANY • NEW YORK • PHILADELPHIA • Division of Crown Cork and Seal Company, Baltimore, Maryland

QUESTIONS and Answers



This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.

Plasticizer for micro-crystalline wax

QUESTION: One of our users of micro-crystalline waxes has asked us if we know of a good plasticizer. They understand that certain resins or synthetic thermoplastic compounds are being used to increase the plasticity and perhaps raise the melting point or resistance to heat of some of the micro-crystalline waxes. Can you give us more definite information on such materials for our customer and for our own files?

ANSWER: There are many synthetic resins which are soluble in petroleum waxes and which have the property of raising the melting point and increasing the plastic range. This means that such resins, properly dissolved in the wax, will raise the working temperature of the final mixture and will make stronger seals and a tougher film.

A good example of such a synthetic material is polybutylene, which is made by polymerizing isobutylene from refinery or natural gas, which results in a product varying from a viscous liquid up to a rubber like material, depending upon the degree of polymerization. Polybutylene of the proper molecular weight added to wax in relatively small quantities, results in the effects which you desire.

You should get in touch with some of the larger wax refiners and obtain their advice as to the grade and quantity of polybutylene which you should use for your particular application. These wax companies can also suggest a variety of other materials to do a similar job and which may be better adapted to your particular problem.

Insulating properties of aluminum foil

QUESTION: Does aluminum foil have insulating properties against heat? Our interest in this is from the standpoint of packaging vitamin products for export to tropical countries in cases where the capsules are likely to melt or become sticky. What can you recommend to overcome this diffculty?

ANSWER: Aluminum foil without surface coatings or printings has a very high insulating value for a certain kind of heat—specifically, radiant heat. Heat is conducted or transmitted by three different means—convection, conduction and radiation. In the case of a packaging material, only conduction or radiation are of interest because convection concerns movement of heat by air or other gases. Aluminum foil on the exterior of your vitamin package can provide transient insulation against radiant heat but would possibly accelerate the melting of the product by conducted heat. For example: If the package were to be displayed for a very short period of time to sunlight or to some other incandescent light source, bright metal on the exterior would considerably delay the heat penetration into the vitamins. However, the metal foil would accelerate the melting of the vitamin if the heat came from a warm shelf or other heat source on which the package was resting.

In any event, the benefit to be gained by using aluminum foil for its heat-insulating value against radiant heat would not be sufficient to prevent the melting of the product in a relatively short time. No package can be made to be a heat barrier for more than a limited period because the package has no means of removing the quantities of heat which enter. This means that it would only require a relatively short time before the contents of any package would be affected if stored in an atmosphere above their melting point, regardless of the package materials used.

Mold and bacteria protection post-war?

QUESTION: Will there be a post-war market in the field of chemical manufacturing for agents that will render papers used in packaging mildewproof and bacteriostatic? What we would like to know is whether it would be feasible for a company like ours to go into considerable development work in this field. Can you give us a few examples where treatment of paper in this manner would be an advantage in packaging?

ANSWER: There are many existing applications and possibilities for new uses if cellulosic materials could be made resistant to the growth of molds. The number of such problems is greater today than ever before because of the shipping of war supplies into tropic zones. Such problems will be more acute in peacetime if we continue to export goods into the tropics, because of the longer storage times and because commercial shippers will not be able to tolerate large losses. Growth of and deterioration by molds is most severe in the cellulosic type materials, although it is not unknown or impossible on many of the synthetic resins and similar materials, but in the latter case there is usually much more resistance to the growth. There are many domestic problems in connection with mold growth on packaging materials and you can obtain more details of these problems by discussion with shippers of fresh produce, meats and other foods which possess high moisture contents and which are handled at temperatures above the freezing point of water.

You should also appreciate that there has been a tremendous amount of work along these lines and many materials developed which successfully inhibit mold growth in a variety of applications.

Modern Packaging has, within the last year, carried the stories of several of these developments and the new materials seem to be coming into this field at a slow but constant rate.

The answer to your question can be summarized as follows: There is a firm and increasing demand for treatments which will render cellulosic materials resistant to growth and deterioration by molds. While there are also many processes and products which fill specialized needs, there is still room for new materials with improved characteristics and more general applications. These conclusions also apply to bacteriostatic treatments, except that this field appears to be less important today than is mold proofing.



WASHINGTON REVIEW

R. L. Van Boskirk, Washington Editor

●Packaging Materials Still Tight—Predictions of continued paper tightness for at least three years following V-E Day were made by W. LeRoy Neubrech, Chief of the Pulp and Paper unit, Bureau of Foreign & Domestic Commerce. He estimates paper needs as 22,522,000 tons during the first year after the German surrender, although consumption in normal times has usually been approximately 20,000,000 tons per year, of which total packaging usually got about 7,500,000 tons. This 22,000,000-ton estimate apparently is based on the assumption that our national production will be in the neighborhood of 125 billion dollars; and the paper estimate may have been arrived at by comparison with the non-durable goods production in that total. (Statisticians in the paper industry point out that paper production affords almost identical parallels, over a period of years, with non-durable goods production.)

Currently, packaging needs call for better than 50% of the paper and paperboard that is produced as compared with about 37% in normal times. That is, packaging is getting an increasing share of a decreasing total. And because of this decreasing total, conservation and intensified restrictions are in order.

●Shipping Container Shortage Emphasized by Increased Curtailment—The first question that occurred to this correspondent when the amendment to order L-317 (fibre shipping containers) was announced was, "How come only a 5% cut when the container shortage is more serious that it has ever been."

It didn't take WPB officials very long to convince us that the overall cut was considerably more than indicated by the simple statement which "limits the quarterly use of such containers to a number that will require only 95% of the total containter board (by both weight and area) in the containers lawfully used by a packer in the corresponding quarter of 1944."

In the first place, the new amendment puts all quotas on the same base—that is, 95% of the amount of material used in 1944. Furthermore, shipping containers used for military purposes in 1944 must be excluded from the base upon which packing quotas are computed. Formerly such containers could be included in this base.

The original order quotas were based upon various base periods during the years '41, '42 and '43. An attempt was made at that time to find the most normal period of usage. Furthermore, various items were given ratings under P-146 and could obtain shipping containers according to that rating. However, if such things as fishing equipment or curling irons or items in similar categories could not get material to make fishing equipment, curling irons, etc., so they didn't need their allotted quota of boxes. The new quota is based entirely on the boxes lawfully used in 1944 and therefore it is conceivable that a manufacturer of curling irons, for example, who was entitled to receive shipping containers last year, but had no curling irons to ship in them, could obtain no boxes at all in 1945 except on appeal.

A significant part of the amendment was the cancellation of all appeals which had been granted prior to February 6, which means that many thousand cartons which had been granted under appeal will not now be allowed. Thus, an individual may have lawfully used 10,000 under an appeal grant but actually used only 8,000. In this example the new quota allowance will be based on 95% of 8,000.

To back up this clause of the order further, there is a prohibition against carrying over an unused portion or borrowing from one quarter to another.

A further cut in containers available to shippers was devised by making the order retroactive to January 1, 1945 though the order was not published until February 6.

There are a few items that will be entitled to more containerboard than previously. Containers for V-Mail are now unrestricted, as are those for fresh fruits and vegetables which were formerly prohibited. That prohibition resulted in so many appeals that they decided to permit unlimited use because the crop is limited and is highly essential.

Officials are conscious that this order has been widely violated in the past and have taken steps to warn all users that future evasion of this order will result in prosecution. Letters have been mailed to thousands of container users, signed by M. S. Verner, Jr., Director of the Compliance Division of WPB. The biting tooth in the letter is the last paragraph:

"Investigations of packers under order L-317 are now being made and will continue during 1945. Should an investigation *made after receipt* of this letter, show a packer to be in violation, such violations will be considered willful by this office and may subject the packer to compliance action as provided by law."

●Wood Pulp for Kraft Cut—A 10% cut below first quarter authorization was made in the use of wood pulp for kraft grocery and variety bags.

●M-286 Amended—Users of glassine, greaseproof and vegetable parchment papers are advised to make a careful study of the details of the M-286 amendment issued January 31, particularly of the long list of prohibited uses which is a part of the order. Permitted uses outside of packaging field will probably make a dent in the supply.

●Certificate of Compliance Not Required—If you buy condenser tissue or sanitary food container stock, you no longer need furnish your supplier with the certificate of compliance required by M-241-a, but you are now subject to the inventory provisions of M-241.

●Shipping Containers Continue Scarce—The food industries of the nation are urged by WFA to plan ahead for their shipping containers. "The current packaging situation does not justify any slackening in methods of stocking containers," says the WFA statement. In order to assure sufficient containers for the 1945 crop of fruits and vegetables, WFA recommends (1) placing orders for containers as far ahead as possible, taking delivery any time the containers are available; and (2) salvaging containers and reusing them to the utmost. Growers and shippers should use their sheds for storage of used containers.

●Glass Ample—Glass production still appears to be ample. Little difficulty is anticipated in obtaining glass containers for essential food products during the current year.

To permit use of an excess supply of home canning caps for glass containers, WPB granted relief from L-103 standardi-

zation restrictions to the Anchor Hocking Glass Corp. Other companies who can establish excess inventories of the same type of closure may make similar appeals, WPB officials said.

●Another Blow to Collapsible Tubes—Collapsible tube users received another jolt. Further amendment to M-38 reduced use of lead for collapsible tubes during the first quarter of 1945 (other than military and medicinal) to 15% of the amount used in the first six months of 1944 as compared with the 30% limitation set by the amendment to M-38 reported in this column last month. Consistently, amendment to M-115 follows suit with a similar limitation. This amendment establishes no control over the end use of collapsible tubes except that end users are limited in the amount of tin that can be used in packaging various products. As to distribution, tube manufacturers may do as they think best, but they must deliver for medicinal purposes an amount at least equal to that delivered in the first quarter of 1944.

WPB announces that a survey is under way to determine the relative importance of the various civilian uses of collapsible tubes with a view to placing control over the end uses. The Dentifrice Industry Advisory Committee expressed it as their consensus that no workable substitute had been found for collapsible tubes for packaging tooth paste. Their only problems now, said this committee, are packaging materials and shipping containers. They have company.

●Drum Sheet Steel More Critical—The Industry Advisory Committee for the steel shipping container industry has recommended that L-197, which controls steel drums, be retained indefinitely. The WPB reported to that committee that drum sheet steel is becoming more critical and delivery delays may be expected. Amendment to that order contains new lists of permissible and non-permissible uses and limits the permissible uses to 95% of the tonnage of new drums for corresponding product and quarter of 1943; or to 22¾% of the tonnage used during the entire year 1943. Drum users are advised to study the new lists.

●Government Handling of Burlap O.K.'d—The Industry Advisory Committee of the burlap importing and manufacturing field appears to be thoroughly satisfied with the Government's public purchase program, which is due to expire June 30, 1945. The committee voted unanimously for the government continuation of the program after hearing a recital of the war conditions and problems which prevent the return of activity to private industry. These conditions are continued tightness of the shipping situation, difficulties of unloading at American ports and the uncertain supply situation in India. The textile bagging supply situation is generally unfavorable and the committee is opposed to reductions of individual burlap allocations under which manufacturers are now operating.

●Wirebound Box Prices May Be Upped—OPA says makers of wirebound boxes may apply for upward readjustment of prices if they have suffered increased costs. Applicants must present profit and loss statements and balance sheets for 1936-1939 and also for latest full year of operation.

●Ceilings on Paperboard Increased—OPA has increased ceiling prices on paperboard made from waste paper or straw and sold east of the Rocky Mountains. Box and container manufacturers who buy such paperboard must absorb the increased paperboard prices. The ceilings on paperboard boxes or containers remain the same.

●Barrel Prices—Today's prices on bourbon whiskey barrels, staves and heading may be adjusted later, says OPA, if ceiling prices for those items are increased.

●Computing Wooden Box Prices—If you make industrial wooden boxes, you may now choose from three different methods of computing your prices: (1) You can continue the general level of ceiling prices of October, 1944; (2) you can base your item-by-item prices on March, 1942, and add increases in material and overtime labor since then, or (3) you may establish pricing for all items on a uniform basis. Better study the three methods carefully, because once you select one of the three methods you can't switch to another without permission from the national OPA office in Washington.

●Restrictions on Bread Wraps Removed—You may now package bread and rolls any way you like. WFA has removed from War Food Order No. 1 all restrictions on packaging of these products. However, bakers are subject to provisions of M-351 which limits the sales, delivery or use of waxed paper when used in any fashion in addition to any other paper wrapper, either waxed or unwaxed, except end seals and except one paper outsert not wider than three inches. This outsert, however, if used must be the only label indentification or must be used for label correction. Overwraps for crackers and biscuits are still limited. (If you need more information, write to WPB, Paper Division, Washington 25, D. C., Ref: M-351.)

●FDA Reports—A "noticeable increase in slack filling and short measure" is mentioned in the 1944 annual report of the Food & Drug Administration, just out. Causes: Containers of lighter weight and fewer sizes; substitution of ingredients; inexperienced help; rationing; attempts to circumvent price ceilings. (Copy of the full report may be obtained from Superintendent of Documents, Washington 25, D. C., 15 cents.)

●Aluminum Production Short—Aluminum continues critical. Action of WPB reported last month, instructing Alcoa to close its order books for the first four months of 1945, now has to be supplemented by WPB orders to four companies instructing them to increase their combined production of aluminum ingots a total of 10,000,000 lbs. per month.

●Casein Production Off—Casein production has hit a low mark. Production for 1944 was 15,266,000 lbs., a decline of 17% from 1943 figures.

●Folding and Set-Up Boxes—There is every likelihood that order L-239, folding and set-up boxes, may have to be tightened up in the near future unless demand slackens. This has always been one of the most criticized orders in the Forest Products Section of WPB. There were many critics who believed it should have been more severe from the outset and who could not understand why it took officials so long to promulgate the order in the first place. MODERN PACKAGING spoke its piece on this subject many months ago. When the order finally did come out, many people thought it should have been on an allocation basis rather than a limitation order. It is now too late to do much about it except to tighten up on limitations.

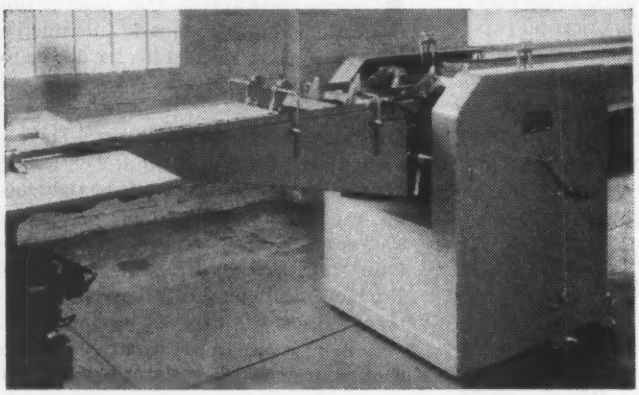
Defenders of the Paper Section's slowness to act on the original order claim that they were not slow but merely cautious because after all there was only a small shortage which would have disappeared in a very brief time if conditions had changed slightly for the better. But instead, conditions continued to get worse with the result that set-up and folding boxes are now almost unbelievably scarce and if civilian users were cut only 10% more severe hardship would engulf many manufacturers. However, officials predict that it may be necessary to make even more than 10% cuts in some categories. They point out that it is unfair to name any one particular product as the possible recipient of a severe cut, but as a hypothetical example one official named candy. It has already taken a severe curtailment in that boxes must be limited to five ounces although they frequently ran over eight ounces in normal times. Nevertheless officials still think it is possible to reduce the amount of board used to less than five ounces in ordinary candy packaging without undue hardship.

When the order was issued, it was predicted that it would save about 300,000 pounds in a year, but there have been various violations of the order and one official said it was a good guess to estimate that not more than 250,000 pounds had been saved.

Equipment and Materials

GLUE SEALER WITH AUTOMATIC FEED

Container Equipment Corp., Newark, N. J. has added an adjustable carton glue-sealing machine, Model A-3901-12, equipped with an automatic carton feeder to its line of carton sealing machinery. This combination carton feeder and sealing machine provides a low-cost fully automatic installation. The filled cartons travel to the automatic carton feeder along any moving



belt equipped with adjustable guides. The speed of the conveyor belt and that of the sealing machine are so synchronized that the cartons are automatically fed into the sealing mechanism at a rate commensurate with the actual filling capacity of the cartons. Counterbalanced accumulators allow the cartons to enter the feeding conveyor so timed as to place one carton in front of each set of carton pushers. A wide range of adjustability is retained in addition to a speed control which permits filled cartons to be sealed, tops and bottoms simultaneously, at speeds up to 90 per minute. A new type fully enclosed compression unit, the company states, reduces friction to a minimum and permits an increase of pressure that may be applied to the glued flaps.

MARKING, STENCILING AND ADDRESSING DEVICES

The exclusive roller marking method originated by Floquil Products, Inc., New York City, provides neat stencil markings quickly and easily without wear and tear on stencil and roller. The roller marker may be used with plastic, board and metal stencils and it is equally good for both opaque and transparent inks.

Diagraph-Bradley Stencil Machine Corp., St. Louis, Mo., has recently placed on the market a new type of fountain stencil brush. The brush has a continuous, controlled flow of ink—operates like a fountain pen. Features are: Adaptability for use with any stencil ink, durable aluminum construction; large fender guard to prevent ink from the bristles getting on clothing, tables, etc. when laid on its side; fender prevents brush from rolling.

A complete line of automatic case numbering machines designed to simplify shipping room procedures is available from Adolph Gottscho, Inc., New York City. These imprint, large, legible figures on corrugated cartons, wooden cases and even on shipping papers themselves. Machines are ordinarily supplied with consecutive, duplicate and repeat actions. They may also be supplied with triplicate and quadruplicate substituted for either the consecutive or duplicate numbering systems. Models may be furnished in 1 in., ¾ in. and ½ in. rubber-faced figure sizes, for straight serial numbering or lot numbering. Large handle makes for easy manipulation.

Weber Addressing Machine Co., Chicago, Ill., offers a complete outfit known as Tag-O-Graph, Jr., for addressing tags and labels, and printing directly on boxes, cartons, etc. The device prints up to 9 typewritten lines in a space of 3¼ in. by 1¾ in. at the rate of 50 addresses per minute, it is claimed. Stencil, which may be handwritten or typewritten, is held against the ink pad by 2 steel springs. Outfit includes 25 extra stencils, stylus and can of waterproof ink, plus instructions.

TRANSPARENT PRESSSURE SENSITIVE TAPE

Freydberg Bros.-Strauss, Inc., New York City, are offering a new transparent pressure sensitive tape under the name of "Cello" tape which will be sold directly to industrial users as well as through jobbers.

CELLOPHANE DIP CORD

The Fibre Cord Co., New York City, is marketing a twisted cellophane cord, known as "FCC Dip Cord" especially developed for suspension of articles to be dip-coated with ethyl-cellulose compound. It is claimed the cord is non-wicking, a feature essential to corrosion-proof coating. The cord, which is colored red to distinguish it as an Ordnance Grade A wrapping material, is available in gauges to handle all weights in dipping. The cord is also said to be self-laminating in the heat of the dipping operation.

APPROVED DESICCANT

The Culligan Zeolite Co., Northbrook, Ill., has been authorized to package and distribute Desiccite No. 25—a drying agent—which may be used in Method II packaging of vital war material. Now available in sufficient quantity to help alleviate the shortage of silica gel, Desiccite No. 25 has been approved by several branches of the armed services. The material is a clay desiccant, consisting of hard gray pellets, approximately 3/16 in. in diameter and 3/16 in. in length; said to be practically dustfree. At present it is being packaged in 7½-lb., 1½-lb., 12-oz., 6-oz. and 3-oz. bags, either of regular jean cloth or paper-lined jean cloth.

In Method II packaging, 1½ lbs. of Desiccite should be used for each pound of silica gel that is specified. Desiccite has a density of approximately 68 lbs. per cu. ft., whereas silical gel has a density of 45 lbs. per cu. ft.

WRAPPING MACHINES NOW AVAILABLE

The Surplus War Property Division of the Reconstruction Finance Corp. announces the following surplus machinery:

"A wrapping machine, filter paper, bought in 1942, with 1/20 HP, 110 V, 1 P, 60 C, AC Janette Motor and starter. Used to wrap filter paper around charcoal containers. Original machine converted to handle low tensile paper and lightweight service canisters. Used but reported to be in good condition." Another, "wrapping machine, filter paper, without motor, usable on high tension paper only. Bought in 1941 and used to wrap filter paper around charcoal canisters." These machines may be inspected by contacting Richard Donovan, manager, CWS Zanesville Warehouse, U. S. Army, Zanesville, Ohio.

CASE GLUER

J. L. Ferguson Co., Joliet, Ill., have announced a streamlined case gluer with belt compression sealer. The new Model D "Packomatic" incorporates the latest developments in both design and structure—and its operation is said to be trouble-free and completely automatic. It seals both case tops and bottoms at a speed of 200 to 2,000 per hour, depending upon case size and packaging schedule. It may be furnished to seal tops or bottoms only, as desired, and is available in portable or stationary models. Orders for post-war deliveries are now being accepted.

Plants and People

The Goodyear Tire & Rubber Co. will start shortly on the construction of a $1,500,000 chemical plant to manufacture a wide variety of rubberlike plastics known as vinyl chloride co-polymers. The new plant, in Natrium, W. Va., with a capacity of 3,000,000 lbs. per year, was passed on by WPB because of the wide range of usefulness of the new synthetics in meeting war needs. The materials are particularly useful for packaging purposes and it is believed that one of their chief war uses will be for packaging for shipment by sea or air to all theatres of war.

The district offices and showrooms of the glass and closure division of the Armstrong Cork Co. have been moved into new quarters. The Cleveland office is now at 209 Hanna Bldg. Annex, Prospect Ave. and 14th St. The Kansas City office is at 800 New York Life Bldg., Kansas City and the St. Louis office is now in the Union Electric Co. Bldg., 1205 Olive St., St. Louis.

Perley S. Wilcox and Herman C. Sievers have been elected vice-chairmen of the board of directors of the Eastman Kodak Co. recently. Charles K. Flint, vice-president of Kodak and general manager of the Kodak Park Works, was elected a director to fill the vacancy caused by the recent death of Albert F. Sulzer. Adolph Stuber, vice-president of Kodak, has taken over the responsibility for sales and advertising in consequence of Mr. Sievers' elevation. James C. White, vice-president and general manager of Tennessee Eastman, has become president of that organization, taking over the former duties of Mr. Wilcox.

George H. Stucke has been advanced to general sales manager of Sherman Paper Products Corp., Newton Upper Falls, Mass. He will be assisted by J. Arthur Hardigan who has been promoted to sales manager of the display division and P. E. Sheehan, sales manager of the specialties division.

The employees of the F. H. Noble & Co. were awarded the Army-Navy "E" for excellence in war production on January 29.

Roland P. Soule has been elected vice-president of American Machine and Foundry Co. in charge of research and development.

E. W. Pitt has been appointed director of sales for the Central Paper Co., Muskegon, Mich.

W. Gibson Carey, Jr. has been elected to fill the vacancy on the Board of Directors of the Armstrong Cork Co. caused by the death of Dwight L. Armstrong.

The Chickasaw Mills of the Hollingsworth & Whitney Co., was awarded the Army-Navy "E" on February 16.

The Aldine Paper Co. has moved its offices to 535 Fifth Ave. where more spacious quarters were available.

William E. Rutenberg has been added to the expanding staff of J. M. Huber Inc., printing ink manufacturers, to cover the Chicago area as well as Michigan and Wisconsin.

Jerry Goldsmith, formerly in charge of Specialty Sales Dept. for C. Wilson Wood, has gone into business for himself with offices at 728 Munsey Bldg., Baltimore. He will represent Shellmar Products Co. and Benj. C. Betner Co.

The Kidder Press Co., Inc., Dover, N. H., has announced the appointment of sales agents in the United States and Canada. A. E. Marconetti, Inc., and C. P. Robinson, both of New York City, will cover the Eastern and Mid-Western States and Canadian territory and Harry W. Brintall Co. of San Francisco will serve the Far West and Western Canada.

The Burgess Fastening Equipment Division of The Lake Erie Chemical Co. has been sold as of November 16. The business will be carried on by The Burgess Fastening Co., National Terminals Bldg., Cleveland, Ohio, Warren S. Johnson, former director of sales, is general manager of the new company.

Owens-Illinois Glass Co. told a press conference in New York Jan. 22 that its post-war plans include promotion of the one-trip beer bottle, the square milk bottle (already introduced) and a new lighter vacuum coffee jar.

The Gardner-Richardson Co. of Middletown, Ohio, has moved its New York office to Room 6723, Empire State Bldg.

Bernard W. Lueck has been promoted to product sales manager for industrial masking tape, sandblast stencil and pressure sensitive wraps for the Minnesota Mining and Mfg. Co. Robert L. Westbee has been named sales manager for electrical tape and electrical insulation products.

George A. Turmail, formerly canned food buyer connected with the Procurement Division of the Chicago Quartermaster Depot, has been appointed special representative of Continental Can Co. W. J. Mutschler was named manager of the packaging laboratory and A. G. Skibbe, supervisor of container evaluation.

Carroll B. Kelley has been appointed field representative for Trenton and the surrounding territory for the American Photocopy Equipment Co. of Chicago.

Protex Products Co. has announced the removal of executive offices to 44-50 Sherman Ave., Jersey City, to take care of expanding operations.

Robinson Ord has been appointed to serve as acting general manager of sales of Monsanto Chemical Co.'s organic chemicals division pending the return to duty of Fred. C. Renner who is recovering from a serious illness. A. T. Loeffler, branch manager at New York, has been assigned to St. Louis as temporary assistant general manager of sales; A. P. Kroeger is in New York as acting assistant branch manager and the duties of C. H. Sommer, manager of plasticizers and resin sales, has been extended to include those of acting manager of intermediate sales.

Dr. Charles F. Roos, president of the Econometric Institute of New York City, has been appointed economist for the Flexible Packaging Institute, a group of manufacturers cooperating with the Government on the packaging of war supplies and critical, perishable civilian commodities in specially-made to order containers of treated papers, plastics and metal films. Wildrick & Miller, Inc., have been appointed advertising counsellors.

Ernest O. Radon, office manager for the Brett Lithographic Co., died January 21, ascending the ski trail near Cheshire, Mass.

William H. Waldron, vice-president and director of the John Waldron Corp. of New Brunswick, N. J., died February 1, at his home. He was 80 years old.

Jim D. Furry, sales manager for the Chase Bag Co., died January 26, following a hospital confinement.

For Your Information

John W. Thomas, chairman of The Firestone Tire and Rubber Co., was awarded the Gold Medal of the American Institute of Chemists, recently for his leadership in rubber research for the past four decades.

The Plastics Materials Mfgrs. Assn. has elected W. Stuart Landes as president and J. R. Hoover as vice-president at an annual meeting held in New York. R. E. Dodd was elected chairman of the resins adhesives division.

The Foreign Economic Administration, in an attempt to scotch unfounded rumors about lend-lease, releases the information that according to high Army officers, who are closely connected with the distribution of supplies, there is no basis in fact to the rumor that the British have removed labels from American lend-lease goods and substituted their own.

The Navy Department has turned over to The National Inventors Council 25 inventive problems for which it has no solutions. Among them are the answer to a satisfactory shockproof aerial-delivery container not requiring a parachute; possibly pneumatic cushioned, the cushions to be inflated from a bottle of CO_2 after leaving the plane—inexpensive enough to be discarded after one use. Another one is a gasoline resistant coating for the interior of gasoline drums and not adversely affected by gasoline. Still another is a method of welding light-gauge aluminum. Suggested solutions should be prepared in sketch and description form and sent to the National Inventors Council, Department of Commerce, Washington, D. C.

The Plaskon division of Libbey-Owens-Ford Glass Co. has just published a colorful, illustrated 28-page booklet on resin glue. It tells the history of glue; the development of permanent-bonding, waterproof resin types; methods of using them in fabricating; and, a wide range of present-day applications. Copies may be had by writing the company, 2112-24 Sylvan Ave., Toledo.

The Can Mfgrs. Institute stresses the many advantages of the tin can as a food container in its latest advertising campaign spotlighting the canned peach. Full-color, full-page advertisements will appear shortly in national magazines.

"Color Code for Safety" is the title of the 16th folder in the Color Facts series issued by the Eagle Printing Ink Co., division of General Printing Corp. The Du Pont Code illustrated offers an opportunity to standardize safety practices and to let industry at large benefit from a uniform and meaningful symbolism. Copies may be had free of charge from the company.

The National Paper Box Mfgrs. Assn. has canceled its annual meeting which was scheduled to be held in Chicago in May.

The booklet entitled "Idea Corner" considers six basic fundamentals of merchandising considered important for post-war package planning. These fundamentals are illustrated by 22 package suggestions appropriate for a variety of products from waffle flour to screw drivers. The booklet was published by the cellophane division, E. I. du Pont de Nemours & Co., Inc., Wilmington 98, Del. Copies are free upon request.

The Chicago Show Printing Co. has published a booklet for advertising and sales executives to use in developing point-of-sale promotion ideas for their products. There are examples of many kinds of displays—for floors, counters, windows, shelves, display cases, walls, etc. A mimeographed addendum to the book gives information on each of the displays illustrated—physical specifications, where used, how shipped, results and other data. Copies are available from the company, 2635 North Kildare, Chicago.

Jan-P-133 is the number of the latest booklet of joint Army-Navy Specifications for packaging and packing for overseas shipment—boxes, set-up, paperboard. It was prepared by the Office of the Quartermaster General in cooperation with a committee from the National Paper Box Mfgrs. Assn.

A new brochure just published by Product Designers, Chicago industrial design organization, entitled "Design for Profit," presents the company's complete service from idea to blueprint to production line to packaging. A copy may be had by writing the company, 230 N. Michigan Ave., Chicago 1.

The Toilet Goods Assn. has canceled its annual convention scheduled for May. The elections will be held by mail.

The Quartermaster Corps is now providing an additional waterproof barrier in the packaging of "K" rations destined for the South Pacific because of the torrential rains and high humidity prevalent in that theatre. Beginning with the first quarter of 1945, a substantial portion of the "K" ration produced by about 50% of the packers has had a water- and moisture-vapor barrier between the outer case and the packaged rations. This barrier is a triplex asphalt-impregnated bag designed to fit snugly into the outer case. The material is creped so that it is flexible in two directions. The closure also is waterproof.

The Waterproof Paper Group, at its annual meeting held in New York recently, elected James F. Doyle, vice-president of the Arkell Safety Bag Co., chairman and Fred P. Wood, president of the Simplex Paper Corp., vice-chairman.

Board Products Publishing Co., Chicago, announces the availability of the new, revised and enlarged edition of "The Manufacture of Fibre Shipping Containers," by A. W. Werner. It contains interesting data on new V-boards, V-boxes and other recent developments and processes in the corrugated and solid fibre box field. Prices, $1.75. Available in the near future will be: "The Manufacture of Fibre Cans," by R. P. Bigger. A booklet, completely illustrated, showing the various types of can manufacture operations; the principle types of fibre cans—spiral, convolute and lap-seam; fibre-end, metal-end; and examples of cans. Price, $1.00. "The Wastepaper Industry," by Harry J. Bettendorf. Price, $1.50. Enclose money order or check with order.

Aetna Plywood and Veneer has just published the 2nd section of its Victory Binder entitled "The Function of the Plywood Distributor." The booklet describes in detail the workings of the Aetna organization, equipment and activities as being typical of the functions of a national plywood distributor. The company will mail copies upon request.

A discussion of plastics with special emphasis on packaging with plastics was the theme of a meeting held recently at the American Designers Institute recently. David S. Hopping, director of sales development of Celanese Plastics Corp. spoke of plastics in packaging with special appeal to designers. Before his speech the guests saw the motion picture "Proving Ground."

CORRECTION: On page 110 of the January issue the credits on item 1 should have read: Display, Industrial Lithographic Co., New York City. Finishing, Pioneer Mounting and Finishing Co., New York City.

U. S. patent digest

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at ten cents each in currency, money order or certified check; postage stamps are not accepted.

Strip Cutter, A. Torrese (to A. P. deSanno & Son, Inc. a corp. of Penna.) U. S. 2,365,663, Dec. 26. A machine for cutting sheet material with flat surface for reception of sheet to be cut, and a knife pivotally attached to said base for oscillatory movement in a plane transverse to said surface.

Package Wrapping, B. Y. James, Miami, Okla. U. S. 2,365,704, Dec. 26. A pre-formed package wrapping comprising a quadrangular blank and opposed cover sections attached to opposite edges, each section having adjoining end, top and side walls, end walls being contiguous.

Treatment of Sausages & Sausage Casings, G. Redemske (to Armour & Co., Chicago, Ill.) U. S. 2,365,728, Dec. 26. A method of preparing sausages comprising treating unstuffed animal casings with a small amount of proteolytic enzyme.

Match Book Assembling Mechanism, M. Spector (to Spector Patents, Inc., Chicago, Ill.). U. S. 2,365,733, Dec. 26. A match book making machine wherein match books are advanced in a line.

Package & Closure, W. P. White (to White Cap Co., Chicago, Ill.). U. S. 2,365,737, Dec. 26. A package for packing liquids and the like comprising in combination a receptacle having an annular mouth rim at its upper end and having a cylindrical peripheral compression surface therebelow.

Chip Holder, R. I. Partridge, Arcadia, Calif. U. S. 2,365,836, Dec. 26. A holder for chips or the like, comprising two separable sections, said sections having adjacent faces with registering recesses therein.

Carton, N. Cantor, Brooklyn, N. Y. U. S. 2,363,836, Dec. 26. In a collapsible carton comprising telescoping box sections integrally united and foldably coupled by a wall portion of the carton.

Box, T. F. Lind, St. Paul, Minn. U. S. 2,365,887, Dec. 26. A container having a pair of overlying laminations of material, an aperture in the upper lamination, a strap handle cut from the lower of said laminations leaving an aperture therein coinciding with the upper aperture.

Nursing Bottle, H. H. Ganson (to Hygeia Nursing Bottle Co., Buffalo, N. Y.). U. S. 2,365,947, Dec. 26. A nursing bottle having a cap detachably connected to the open end thereof, and a nipple disposed to be retained on the bottle by said cap.

Vanity Case or Compact, J. DePasquale & A. Westerman (to Hardy Metal Specialties Inc., Brooklyn, N. Y.). U. S. 2,366,009, Dec. 26. A container with base section and cover section hingedly connected thereto, each section having a frame member formed with an inwardly offset wall.

Containers for Implantation Tablets, E. Putter (to Schering Corp., Bloomfield, N. J.). U. S. 2,366,053, Dec. 26. A container for a medicinal tablet comprising an elongated glass tube and open at both ends and formed at such ends to receive closure members.

Container, G. Waggoner, Birmingham & R. Miller, Big Beaver, Mich. U. S. 2,366,819, Jan. 9. In a container, a cylindrical housing formed of a plurality of layers of concentrically wound paper glued together, with laminated base member formed of a plurality of discs.

Capsule Handling Apparatus, S. E. Van Tuyl (to American Tag Co., Chicago, Ill.). U. S. 2,366,886, Jan. 9. A capsule tray comprising a block formed with a series of openings therein adapted to receive capsules, and means in each of openings forming a series of coplanar flexible tongues.

Wrapping Machine, H. J. Werden & F. Werden (to American Machine & Foundry Co., a corp. of New Jersey). U. S. 2,366,888, Jan. 9. In a wrapping machine the combination with a conveyor having sets of flights adapted to admit an article therein between, of a member for ejecting articles from between successive set of flights of said conveyor.

Tooth Brush Receptacle, C. R. Ross, Vancouver, British Columbia, Canada. U. S. 2,366,876, Jan. 9. A tooth brush receptacle comprising a casing, a plurality of ventilation openings spaced from the top of the casing, a cap removably mounted on the upper end of the casing and flange depending from the cap overlying and spaced from the ventilation openings.

Packaging Machine, W. W. Sibson, Jr. & H. H. Belcher (to Proctor & Schwartz, Inc., Philadelphia, Pa.). U. S. 2,366,811, Jan. 9. A filling machine, comprising means for depositing a plurality of separate increments of filling material in a container successively, and means for applying a predetermined pressure to each increment prior to depositing the next increment in the container.

Collapsible Container, A. P. Cordwell, Glen Ridge, N. J. U. S. 2,366,770, Jan. 9. A collapsible container comprising front and rear walls connected by a pleated bellows closed on all sides except the top.

Shipping Container, B. J. Davidson (to National Biscuit Co., New York, N. Y.). U. S. 2,367,008, Jan. 9. A shipping case from a single piece blank cut and scored to form front, bottom and rear panels with flaps at each end turned at right angles to the respective panels.

Dispensing Package, C. J. Haag, Hohokus, N. J. U. S. 2,367,019, Jan. 9. A dispensing package including a generally cylindrical tube open at one end, a carrier member having end portions of generally circular cross section adapted to internally fit said tube and intermediate portion of reduced cross section comprising a row of pockets for receiving articles to be dispensed.

Carrier for Containers, J. B. Slevin, Jr., Drexel Hill, Pa. U. S. 2,367,066, Jan. 9. A carrier formed of a flexible sheet material with a pair of panels in back-to-back relationship, said panels having hinged handle flaps in back-to-back relationship adapted to be swung through opening in said panels from either side.

Ampoule Filling Machine, W. T. Barker, Mount Vernon, N. Y. U. S. 2,367,085, Jan. 9. In an ampoule filling, a verticle nozzle, means to support an ampoule below said nozzle in alignment therewith, and means to deliver a charge of liquid to said nozzle.

Razor Blade Carrier, Z. Auerbach (to Seechar Corp., a corp. of New York). U. S. 2,367,084, Jan. 9. A safety razor blade carrier made of a single piece of flexible sheet material.

Means and Method of Applying Labels, R. S. Avery, Los Angeles, Calif. U. S. 2,367,189, Jan. 16. The method of applying labels to an elongated article.

Combined Feed Mechanism & Weighing Device, W. P. Valerino & J. A. Mendes, Habana, Cuba. U. S. 2,367,247, Jan. 16. In a combined feed and weighing device, a weighing mechanism below the delivery outlet of the feed mechanism with electric motor coupled to the feed mechanism, both mechanisms being electrically controlled.

Protective Package, H. J. Fischer (to The Gardner-Richardson Co., Middletown, Ohio). U. S. 2,367,345, Jan. 16. The combination of an outer tubular shell comprising articulated walls, a glue flap of lesser width than wall to which it is secured, articulated to one of the walls and adhesively secured to another of the wall.

Closure, J. W. Thomas (to Aluminum Co. of America, Pittsburgh, Pa.). U. S. 2,367,317, Jan. 16. A cup-like closure adapted to be reformed on a container.

Bottle Collar, C. D. Painter, San Francisco, Calif. U. S. 2,367,371, Jan. 16. An evertible collar blank comprising a single skirt portion and a separated tab portion having opposite ends connected to said skirt portion by score lines converging toward two spaced points at an edge of blank.

Topping Machine for Canning, L. E. Davies (to White Cap Co., Chicago, Ill.). U. S. 2,367,387, Jan. 16. In a topping machine having a conveyor operable to feed containers progressively in a straight path, a pressing mechanism comprising a carrier, a plunger mounted on said carrier and located above the path of the containers.

Closure Cleaning Device, C. C. Green (to Armstrong Cork Co., Lancaster, Pa.). U. S. 2,367,393, Jan. 16. In combination with a capping machine having a hopper and a capping head, a chute for feeding the caps from the hopper to capping head, means for creating a suction in the casing for removing dust from this that might otherwise adhere to the caps.

Carton Corner Construction, S. Lighter Milwaukee, Wis. U. S. 2,367,410, Jan. 16. A carton formed of a single blank having a bottom provided with side and end walls foldably connected to the bottom being disposable either perpendicular to or flatly collapsed into the plane of the bottom.

Antiseptic Package, J. A. Milem, Los Angeles, Calif. U. S. 2,367,417, Jan. 16.

An antiseptic package composed of an elongated envelope containing a medicament or analogous material and formed into a roll, a box adapted to contain the roll and formed with a slot disposed for withdrawal of any length of said envelope from said box.

Process for Making Containers, J. C. Morrell, Oak Park, Ill. U. S. 2,367,419, Jan. 16. A process of manufacturing containers which comprises building a container wall of fibrous material interspersed with a plastic binder.

Self-Sealing Paper Envelopes, G. Schieman (to Internation Plastic Corp.,) U. S. 2,367,440, Jan. 16. A self-sealing envelope adapted to prevent unintentional sealing, a portion of the rear wall which overlaps being equipped with a pressure sensitive adhesive.

Process of Forming An End Closure, J. E. Snyder (to Wingfoot Corp., Wilmington, Del.). U. S. 2,367,443, Jan. 16. The process of forming an end closure on a flexible cigar container of rubber hydrochloride film.

Box, W. J. Tyrseck (to Robertson Paper Box Co., Inc., Montville, Conn.). U. S. 2,367,476, Jan. 16. A box consisting of an inner box comprising four panels and an outer box comprising a panel overlying one of the inner box panels.

Method of Making Containers and Product Thereof, H. F. Waters, New York, N. Y. U. S. 2,367,477, Jan. 16. A container in flat folded form capable of being erected comprising in combination an outer carton having closing flaps at each end and collapsed on medial fold lines in two opposite walls.

Moistureproof Container, J. M. Patek (to Eastman Kodak Co., Rochester, N. Y.). U. S. 2,367,520, Jan. 16. A moistureproof container comprising, in combination, a pair of container sections adapted to be arranged in telescoping relation to form said container, an outer waterproof coating covering the outside surface of outer member.

Wrapping for Commodities, W. H. Bryce, Memphis, Tenn. U. S. 2,367,563, Jan. 16. A moisture-vaporproof wrapper for commodities having heat sealing qualities which comprises a sheet of glassine paper treated with an aqueous solution of anhydrous dextrose and glycerine.

Container, R. J. Greenleaf II, Ipswich, Mass. U. S. 2,367,675, Jan. 23. A sandwich container having substantially the shape, in longitudinal cross-section, of an equilateral trapezoid.

Carton, B. J. Davidson (to National Biscuit Co., New York, N. Y.). U. S. 2,367,717, Jan. 23. A blank for forming a carton having two end panels and two side panels formed alternately thereon adapted to form the four sides of the carton.

Tubular Container, H. A. Wansker, Newtonville, Mass. U. S. 2,367,705, Jan. 23. A knockdown container comprising a longitudinally rigid circumferentially flexible tubular body of fibrous material having at its end a narrow external peripheral rib.

Extensible Dispensing Container, M. I. Williamson (to National Folding Box Co.). U. S. 2,367,706, Jan. 23. Elongated box sections slidably interengaged in retracted telescopic relationship; closure means formed of tearable sheet material, closing one end and interlocks said box sections in retracted telescopic relationship.

Wrapping Machine, C. A. Gerlach, LaGrange, Ill. U. S. 2,368,213, Jan. 20. A wrapping machine with an endless conveyor having spaced pairs of rotable supports for a plurality of cylindrical objects.

Means for Sealing Cartons, N. Hamilton & W. Stern (to Montgomery Ward & Co.). U. S. 2,368,214, Jan. 30. A clasp for temporarily holding the closure flaps of a fibreboard carton in overlapped contact during gluing thereof.

Tape Sealer, J. Oftedahl & E. J. Oftedahl, Forest Park, Ill. U. S. 2,368,262, Jan. 30. A tape sealer comprising a housing having a portion formed to house a roll of tape and an end portion from which the tape may issue and a moistening device.

Weighing and Sorting Apparatus, W. Owen (to Pittsburgh Plate Glass Co., Allegheny County, Pa.). U. S. 2,368,321, Jan. 30. An apparatus for sorting articles according to their weight.

Machine for Making Packages, M. H. Sidebotham, Newton, Mass. U. S. 2,368,429, Jan. 30. In a packaging machine, means for advancing wrapper material, and turret flange for retaining individual wrappers thereon.

Letter Feed and Separator Unit, A. Burckhardt & E. A. Sammis (to Pitney-Bowes Postage Meter Co., Stamford, Conn.). U. S. 2,368,519, Jan. 30. A letter stripping and separator unit whose stripper means engageable with one surface of a letter to effect stripping thereof from the bottom of a stack of superimposed letters.

Moistening Device, A. Burckhardt & F. J. Rouan (to Pitney-Bowes Postage Meter Co., Stamford, Conn.). U. S. 2,368,520, Jan. 30. A device for confining the gummed surface of an envelope flap against the moistening surface of a slotted moistener blade.

Cardboard Receptacle, H. W. Forrer (to Atlanta Paper Co., Atlanta, Ga.). U. S. 2,368,534, Jan. 30. A box comprising front, rear and opposite walls, a bottom wall, a lid hinged to said rear wall, a tongue carried by said lid, said front having a slit therein whereby said tongue may be threaded through said slit to hold said lid in closed position and tearable lid sealing members carried by said side walls and extending transversely across said lid.

Greaseproof Folding Box, D. Levkoff, Brooklyn, N. Y. U. S. 2,368,553, Jan. 30. A container formed from a single rectangular blank of cardboard and being hinge-scored on spaced parallel lines to prove a glue flap on one side edge of the blank, and a reenforcing side wall panel at the other.

Packaging Reel, W. H. Hawkins (to Freydberg Bros.-Strauss, Inc., New York, N. Y.). U. S. 2,368,594, Jan. 30. A ribbon reel having a central member with opposed side surfaces between which is a spacer on which ribbon is to be wound.

Cap Closure, R. P. Scherer (to Gelatin Products Corp., Detroit, Mich.). U. S. 2,367,739, Jan. 23. A receptacle having a closure opening provided with an upright marginal flange having an outwardly turned edge, a cup-shaped closure removable receivable within said opening and provided with an outwardly turned marginal flange seating up said ledge, and equipped with handle within the interior of the closure.

Carton, W. H. Inman, (to Bloomer Bros. Co., Newark, N. Y.). U. S. 2,367,780, Jan. 23. A tapered container formed from a one-piece folded cardboard blank of generally trapezoidal shape capable of being cut from a stock sheet.

Bottle Closure, S. C. Miller (to Frankfort Distilleries, Inc., Louisville, Ky.). U. S. 2,367,883, Jan. 23. An improved bottle stopper for use with a bottle having a restricted mouth.

Container Fabricating Machine, C. Z. Monroe (to The American Paper Bottle Co., Toledo, Ohio). U. S. 2,367,884, Jan. 23. A container fabricating machine comprising a blank receiving mandrel, a receptacle for a bath of liquid coating substance, means supporting the mandrel for movement along a fixed path portion of which lies beneath the level of the bath in said receptacle.

Closure Attachment Means, C. F. Sievers (to Phillips Petroleum Co., a corp. of Delaware). U. S. 2,367,896, Jan. 23. Closure securing means adapted to removably attach a protective closure to a vessel.

Method and Apparatus for Filling Carbonated Beverages, R. J. Stewart (to Crown Cork & Seal Co., Inc., Baltimore, Md.). U. S. 2,367,899, Jan. 23. A method of filling carbonated beverages comprising flowing a carbonated liquid without interruption from a reservoir containing pressure into a container under like counter pressure.

Conjoint Bottle Mouth and Stopper, E. R. Walsh & H. C. Ward (to Frankfort Distilleries, Inc., Louisville, Ky.). U. S. 2,367,908, Jan. 23. A conjoint-bottle neck and stopper comprising a normally cylindrical stopper shank of compressible and expansible material.

Slitting Machine, W. M. Stocker (to Cameron Machine Co., Brooklyn, N. Y.). U. S. 2,367,974, Jan. 23. A slitting device in which two rotatable and circular shears engage sidewise under spring pressure in overlapping relation.

Paper Feed Device, B. Cooper, Jersey City, N. J. U. S. 2,368,001, Jan. 23. A paper feed device to advance a web, having a plurality of openings, comprising a member having a portion adapted to ride on said web and move into said openings.

Lipstick Holder, J. C. Seager & P. J. Jensen (to Cosmetic Container Corp., Long Island City, N. Y.). U. S. 2,368,044, Jan. 23. A lipstick holder comprising a container having a tubular body member provided with a peripheral band having its top edge spaced from and below the top edge of said body member.

Cosmetic Holder, P. J. Jensen (to Niemand Bros., Inc., Long Island City, N. Y.). U. S. 2,368,045, Jan. 23. A lipstick holder comprising a container having a body member and a bottom closure therefor, a tubular member having its lower portion position in said container and provided with a substantially vertically extending slot.

Machine for Sealing Containers, M. H. Sidebotham, Newton, Mass. U. S. 2,368,046, Jan. 23. A device for thermoplastically sealing an annular joint of a container.

Carrier Carton, W. B. Crane (to Morris Paper Mills, Chicago, Ill.). U. S. 2,368,203, Jan. 30. A knock-down bottle carrier comprising a sheet of paper board folded on transverse fold lines to provide a bottom, a pair of side walls extending upwardly respectively from opposite side margins of said bottom.

HAVE YOU CHECKED YOUR BOTTLING COSTS RECENTLY?

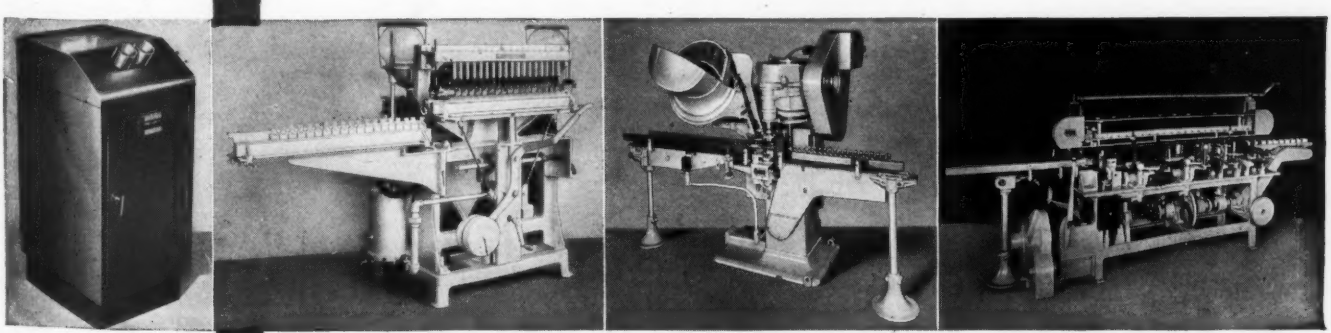
In these busy times with manpower shortages, it is difficult to control bottling costs. But the successful concerns will be those who start now to plan for "Lower Cost Per Container" production in the days of keen competition that lie ahead.

Bottling machinery that will produce at Lower Cost Per Container is a constant objective at Pneumatic. Proof of this lies in the performance records of the hundreds of Pneumatic machines operating in the field today.

More production
Less time out for adjustments
Smoother machine performance
Lower maintenance cost
Greater dependability
Longer machine life

} **All of these add up to higher efficiency resulting in "Lower Cost Per Container"**

Plan now for the future. Consult Pneumatic and *get the facts* on their complete line of Cleaning, Filling, Capping, and Labeling machinery. PNEUMATIC SCALE CORPORATION, LTD., 82 Newport Avenue, North Quincy 71, Mass. *Branch offices:* New York — San Francisco — Chicago — Los Angeles.



CLEANER FILLER CAPPER LABELER

One of several machine combinations offered by Pneumatic

PNEUMATIC
PACKAGING & BOTTLING MACHINERY

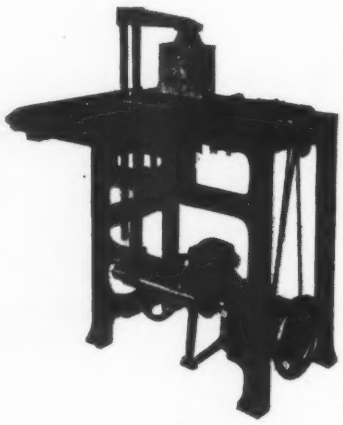
HAVE YOU ISSUED PRIORITIES TO YOUR PLANS?

In these days *everything* must be given a priority in order to meet war schedules. Only in this way can the most important jobs get right-of-way over the less urgent items of our daily work.

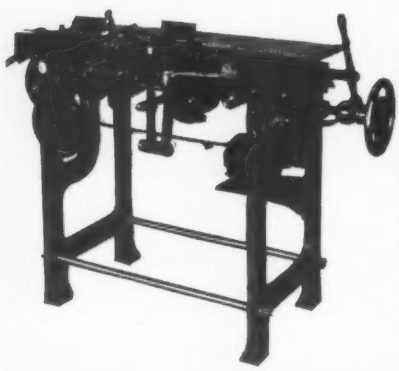
One matter which should carry a high priority on your work calendar is the consideration of your carton packaging plans for the time when you return to the competition of civilian production.

PETERS machines which provide for automatic or semi-automatic carton setup and closing offer one means of saving labor and reducing costs in packaging your product. These machines can offer great assistance in increasing your overall profit.

A sample of each size carton you expect to use will bring our recommendations promptly. Priority of action now on this matter may save costly delay later, as PETERS expects to make deliveries in the same sequence as orders are received.



This PETERS JUNIOR CARTON FORMING AND LINING MACHINE sets up 35-40 "Peters Style" cartons per minute and requires only one operator. After the cartons are set up they drop onto the conveyor belt where they are carried to be filled. Can be made adjustable to set up several size cartons.



This PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE closes 35–40 "Peters Style" cartons per minute and requires no operator. After being filled, the cartons enter this machine as open, filled cartons and leave machine completely closed, ready to be packed for shipment or wrapped. Can also be made adjustable to close several size cartons.

PETERS MACHINERY COMPANY
GENERAL OFFICE AND FACTORY
4700 RAVENSWOOD AVENUE, CHICAGO, ILL.

Trends . . .

(*Continued from page 95*) first time in history, the frozen vegetable production of the country outstripped frozen fruits—by some 2,000,000 lbs. The total pack was just under 231,000,000 lbs. compared to 228,500,000 of frozen fruits.

This growth of vegetable freezing has had a profound effect upon the use of fibre containers in the frosted foods field, for practically 100% of the production has been put up in cartons and cases, utilizing a variety of bags and liners. When the frozen vegetable pack in fibre is added to the frozen fruit output in the same type of packages, the over-all percentage of the U. S. production contained in fibre materials is:

Year	*Per cent*
1941	49.5%
1942	53.0%
1943	74.4%

What this means, in terms of units and in tons of paper, was reported by the U. S. Office of Materials and Facilities.

The report indicates that about 54,000,000 lbs. of fibre packages and wrapping materials have been used by the frozen fruit and vegetable industry in 1944, exclusive of locker plants and also omitting packers of frozen meats, eggs, fish, etc. The 1944 requirements, by types of materials, are:

Item	*Thousands of Units*	*Thousands of Pounds*
Uncoated paper wraps, sq. ft.	290,000	2,900
Glassine papers, sq. ft.	55,000	400
Sulfate and sulfite papers, including waxed, sq. ft.	200,000	2,200
Cylinder-shaped ice cream cans	1,000	1,000
Paper cups and tubs	60,000	11,200
Corrugated fibre cases	12,294	15,000
Folding cartons	231,000	18,400
Cellophane, sq. ft.	416,910	2,900

A study of frozen fruit and vegetable packaging patterns also gives insight into the classes of trade to which these foods are sold in the United States. And, this examination shows, the customers of the frozen fruit industry are far different from those of the vegetable processors.

How the two lines of products compare, percentagewise, for the three-year period is shown in the following figures:

Container Size	*Fruits*	*Vegetables*
1941		
Under 2½ lbs.	14.1%	43.0%
2½ to 10 lbs.	9.3%	45.6%
Over 10 lbs.	76.6%	11.4%
1942		
Under 2½ lbs.	8.8%	38.5%
2½ to 10 lbs.	12.8%	43.0%
Over 10 lbs.	78.4%	18.5%
1943		
Under 2½ lbs.	7.2%	33.2%
2½ to 10 lbs.	1.2%	42.2%
Over 10 lbs.		

In the 1941–43 period, an overwhelmingly large part of the frozen fruit pack of the country has been put up in the so-called re-manufacturing sizes of containers, over 10 lbs. in contents. The small retail package, under 2½ lbs., ranked second in 1941 and 1943, but was third in 1942. The institutional package, containing not less than 2½ lbs. nor more than 10, was third in two years and second in 1942.

The best customer of the frozen vegetable producers, on the other hand, was the institutional buyer. The retail size was a close second and the re-manufacturer a poor third.

HERE'S WHAT MAKES FIDEL-I-TONE* DIFFERENT

HIGH FIDELITY COLOR REPRODUCTION



1 FINER SCREENS

With FIDEL-I-TONE super-etched alloy plates, the use of much finer screens is possible, even on uncoated boxboards and paper. FIDEL-I-TONE reproduction is delicate and faithful.

2 BRIGHTER COLORS

Because FIDEL-I-TONE plates are chemically resistant, certain brilliant pigments that would destroy images on conventional plates can be used. FIDEL-I-TONE colors are more intense and less subject to marring.

3 GREATER UNIFORMITY

FIDEL-I-TONE plates are tough and close grained . . . almost indestructible. The 250,000th impression is like the first. You get uniform color and detail, regardless of the length of run.

* TRADE-MARK

On folding boxes, labels and inserts this new Lord Baltimore Press development gives brilliant, faithful color reproduction. This is true for boxboard and paper alike . . . coated or uncoated. In making plans for your post-war packaging, you can't afford to overlook the advantages of FIDEL-I-TONE.

Folding Boxes
Labels
Inserts

The Lord Baltimore Press

1500 Greenmount Ave., Baltimore 2, Md.

Sales Offices: 595 Madison Ave., New York 22, N. Y.—ELdorado 5-4180



COUNTERBOY SEALED, your war shipments are safely and quickly sealed to the exacting standards of government regulations.

COUNTERBOY EQUIPPED, your shipping department can continue today's high standards in sealing post war shipments.

Save: Man Hours and Dollars

A COUNTERBOY Regional Distributor is as near as your phone. His rich experience in shipping problems is at your service. Your factory superintendent, purchasing or shipping executives may well benefit from his suggestions:—for speeding up production sealing;—new materials to give stronger shipments;—elimination of waste;—correction in safer methods of application,—improved work layouts etc. . . . resulting in thousand of man hours and dollars saved.

COUNTERBOY SEALING-TAPE MACHINES help your packers turn out uniform, neat, and safely sealed containers and packages. Their Automatic-Moistening Unit can be adjusted to condition any kind or grade of gummed tape for a quick, permanent seal.

***Left,* TAPE SHOOTER SENIOR for sealing shipping containers**

***Right,* SIMPLEX No. 10 for sealing inside packages**



SALES and SERVICE in Principal Cities

Write for descriptive circulars
54 Canal Street

BETTER PACKAGES, Inc., Shelton, Conn.

Package from home . . .

(***Continued from page 91***) a bare two pounds at most.

Multiply this one example by the thousands of faulty packages shipped every year and you get an idea of the space wasted hauling material that ends up in overseas trash cans.

Do I mean to say that confections should not be shipped overseas? Definitely not. Snacks from home are as important to soldier morale as anything in the book.

But I maintain that manufacturers and merchants who make a business of overseas packages—and who hope to maintain distant markets after the war—should select the items they send very carefully and that any food product should be vacuum-packed in tin or glass, if possible.

There are shortages, of course. You can't get all the tin and glass you want. You *have* to do without them.

That's where the careful selection comes in. You candy-makers and confection packers know what your product will stand in the way of heat and humidity.

Wouldn't the wiser course be to pack only products that will stand the trip well, rather than try to ship a little bit of every item you make or sell? Wouldn't it be better, also, to put a trifle less of the shipping weight in product and a trifle more of it in a really strong container, a moisture-vapor barrier and more adequate padding?

There is this angle to consider, too. Maybe you are taking a long range view, treating overseas packages as cultivators of potential customers for after the war. Perhaps one of the things you hope your overseas packages will do is to keep boys overseas acquainted with your products.

If you want to make a favorable impression, if you want G.I. mouths to water when the boys think of your goods, the contents of your packages have to be in appetizing condition when they arrive overseas.

G.I.'s get no particular kick out of dumping two-thirds of a package from home into a trash can. They'll remember the packages that disappointed them.

Sum it up this way: If you have products that can stand extreme temperatures and humidity, and if you can pack them well enough for an unbelievably hard journey, servicemen and women will be delighted to receive them.

If, on the other hand, you are dubious about your products or your packages as world travelers, you will do much better to make some changes in them, or be satisfied selling your goods over the counter to satisfy the home folks' appetites.

Stratosphere lunch . . .

(***Continued from page 100***) blue background of the sleeve cover. The inner carton, of solid sulphite board, is bright red with directions in reverse white. The inks used give a semi-gloss effect and aid in easy operation of the slip package.

The packages are filled by hand on a special line set up at the Charms Co., Bloomfield, N. J., which employs 40 persons on this job and will turn out the rations at the rate of 2,500,000 a month. Eighty packages are packed in a 5-gal. metal can, sealed with a double friction cover, and this is shipped in a wirebound wood case. The bulk pack is expected to keep the candy without deterioration for years, if necessary, and it is designed to withstand 160 deg. above and 65 deg. below zero F. and up to 90% humidity.

CREDITS: *Art work, Container Corp. of America, Chicago. Carton, Michigan Carton Co., Battle Creek, Mich. Cans, National Can Corp., New York.*



Mehl CELLOPHANE BAGS

From production lines to our fighting men, Mehl Cellophane Bags are doing a creditable job of safeguarding vital needs, varied as ration components — medical supplies — and armament parts . . . striking evidence of their high protective value — visibility — and high quality standard in bag manufacture.

The strides Cellophane Bags have made and are making *today* will keynote the trend in retail selling and industrial use *tomorrow* when Mehl Cellophane Bags will again be on the job — providing the advantages of proved protection and visibility, moving merchandise faster thru the channels of distribution.

MEHL MANUFACTURING CO.

Division Sydney-Thomas Corp.

2351 FERGUSON ROAD — CINCINNATI 5, OHIO

277 BROADWAY
NEW YORK 7, N. Y.

WESTERN PACKAGE PRODUCTS CO.
1807 E. OLYMPIC BLVD.
LOS ANGELES 21, CALIF.

★ PRESSURE SEAL LINERS
★ V-TYPE LINERS
★ GRADE C POUCHES
★ FOIL POUCHES
★ PAPER GRADE A BAGS
★ SPECIALTY BAGS

Today



MEHL CELLOPHANE BAGS are helping to serve our fighting men — and will continue as long as the need.

Tomorrow



MEHL CELLOPHANE BAGS will assist in merchandising consumer and industrial items, providing proved protection with visibility — a distinct self-selling advantage.



★ Flexibility so designed to make it suitable for collapsible aluminum tubes, and other metal containers.

Its speed of drying makes it adaptable for use on the Production line as a side seam stripe coating for cans, tubes, cannisters, etc.

Application by spray and dries with the speed of a nitrocellulos lacquer. Expensive solvents are not required.

Its adhesion to Aluminum, Steel, Bonderized Steel, and Bonderized Zinc approaches that of a baked finish.

AVAILABLE COLORS—BLACK AND OLIVE DRAB

MAIL OR PHONE US

Your Coating Requirements

THE WATSON-STANDARD CO.

Manufacturers of

PAINTS • VARNISHES • INDUSTRIAL FINISHES AND LITHOGRAPH COATINGS

Factory and General Offices:
PITTSBURGH, PA.
Warehouses:
Boston • Buffalo • Detroit • New York

PROTECTIVE COATINGS

Glass standards . . .

(*Continued from page 108*) should play in postwar years.

There are many occasions when the glass container industry as a whole must speak in unison. It was the association's Traffic Committee which carried on the long series of ICC hearings and presentations of evidence which culminated in parity shipping rates—equal rates on the basis of weight as between products in glass containers and other types of containers. The Association's Traffic Director has been called upon regularly to present the industry's data and to help solve industry shipping problems.

Every industry must be supplied with its own vital statistics—its shipments, production, stocks and capacity as an industry. The accurate statistical information on the glass container industry which the association was able to supply various war agencies was invaluable in regulating the glass section of the packaging field.

All these are activities which the Supreme Court recognized as "lawful ends" of a trade association and they fall within the "statistical and research" functions which the District Court's original verdict would have permitted, with the proviso, however, that no representative of any defendant company should serve on the board. This proviso, the Supreme Court held, would practically destroy the association's functioning and it might therefore better be dissolved.

It is a curious quirk of justice that the loss of GCA may hit a harder blow at the non-defendant companies than at those who were convicted of restraint and monopoly. The larger defendant companies, from their size and resources, are obviously in a better position to exist without the benefits.

The situation is not without hope. The non-defendant glass container companies are trying to assess the situation and are hoping to salvage a working organization to preserve the framework of standardization controls. With the help of other non-defendant companies, they may succeed.

Synthetic rubber . . .

(*Continued from page 87*) bags may be subjected to severe weather conditions and handling a five-ply bag is used, comprised of an inside clay or talc coated sheet, one 60-lb. kraft, one 70-lb. kraft, one asphalt laminated sheet and an outside 80-lb. crepe sheet. The bags are closed by sewing or with a diamond fold and sealed with gummed tape.

An estimated saving of approximately 50% in cost has been reported for the first four-ply bag in comparison with the cost of the previously used carton as well as a two-thirds saving in package weight and a large saving in pulp. It is estimated that the three-ply bag used currently has cut synthetic rubber packaging costs another 3 to 4% as well as an additional saving of some 3,000 tons of paper per year.

The bags have passed successfully storage tests over six-month periods at varying temperatures up to 120 deg. F. Cold is apparently no obstacle since the rubber does not flow at low temperatures.

Continued use of this type of packaging is foreseen for the postwar period. It adds another essential commodity to the more than 300 different products now packaged in heavy-duty multiwall bags.

CREDITS: *Bags and loading equipment developed by St. Regis Paper Co., New York, and Raymond Bag Co., Middletown, Ohio, in collaboration with Rubber Reserve Co.*



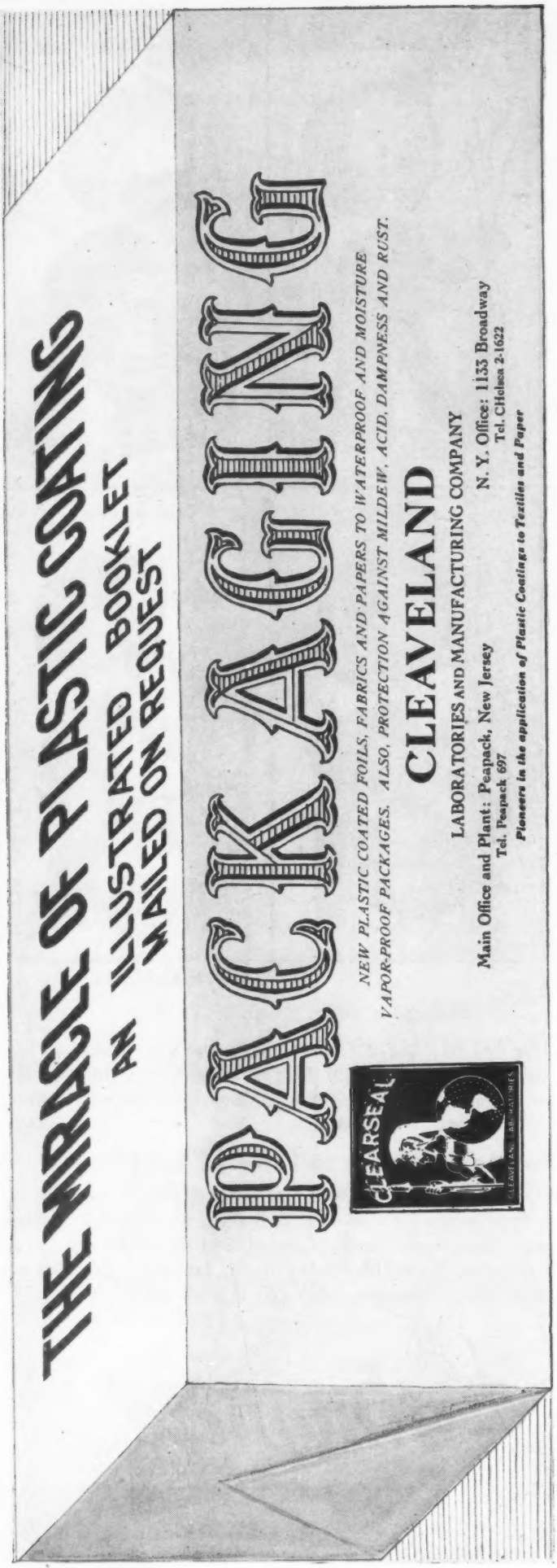
And users tell us that *FILMONIZE Tape does it better yet.* It has no "curl back"—no tangle—no waste. It stands the gaff longer—on or off the roll—and even under the most adverse conditions. It seals instantly, without water—speeds production—cuts down costs.

Are you making full use of tape?

Let your distributor tell you how others use it—and you're bound to see some excellent applications for it in your own shop. Look at the complete FILMONIZE line—Transparent Tapes, Colored and Multi-Colored Tapes, Printed Tapes, Riveting Tapes, Identifying Tapes, Splicing Tapes, Acetate Fibre Tapes, Metal Tapes, Specialty Tapes. All in widths of ½" to 18".



Filmonize
TRADE MARK REG
SELF-SEALING TAPES
INTERNATIONAL PLASTIC CORPORATION
MORRISTOWN NEW JERSEY



IPEAA . . .

(*Continued from page 112*) forward strides in the science of packaging.

"Are we prepared to meet this challenge? We believe the IPEAA is the answer to postwar packaging demands. This association will be equipped to help originate and develop these new ideas and you are the men who will be the leaders in keeping postwar packaging at the top.

"However, our real job at this time is complete coordination with the Armed Services in the winning of the war. We pledge the whole-hearted efforts of the association toward this goal."

Those present at the meeting represented 22 cities in seven states, some coming from as far as 1,000 miles away. Mr. Bishop announced that meetings will be held in Chicago the last Monday of each month.

It has been determined that membership fees for active and associate members will be $10 a year and for corporate members, $50. Active members are defined as those in industry who are actually responsible for packaging and only active members will have voting powers. Associate membership is open to all who are interested in better industrial packaging, including suppliers. A corporate member may be "a firm, corporation or institution endorsing the policies and activities of the association," and such members are limited to one representative at each meeting.

Those interested in membership may obtain application blanks by addressing Irving J. Stoller, executive secretary, Room 2502 Tribune Tower, Chicago 11.

Guest speakers at the inaugural meeting were Herbert T. Holbrook, assistant chief of the Packaging Section of the Office of the Chief of Army Ordnance, Washington, and Dr. C. E. Waring, of the Frigidaire Corp., Dayton. Dr. Waring's technical paper was illustrated with slides and at the conclusion a 35-minute sound film released by the War Department, illustrating proper crating and packing, was shown.

Town and country . . .

(*Continued from page 99*) Policy," shows a picture of workman and a caption, "Appeal to the man who considers himself a 'sucker for a sales talk.'" Beside this is a place for a sticker on which may be written the current price.

Central theme for the dealer display material is the same for window posters, counter cards, streamers, etc. The illustration is a cartoon of a man sitting on a roof top holding an umbrella over leaking patches on the roof. The headline is "Don't wait for this!" with a brief sales message to "revitalize your roof now" with Devoe Karload Klub black roof paint, which "protects your roof against rain, snow, sleet or burning sun." The same colors as are used on the label—red, yellow, blue and black—were selected for the dealer display material. Some of the displays have easel backs for standing in windows or atop stacks of packages.

In this description of the Devoe label, the company's merchandising plan to sell the label to salesmen and dealers and the success story that resulted from the project should be an inspiration to many other manufacturers who would like to get a product out of stockrooms into the display space of a modern retail outlet.

CREDITS: *Labels and display material, Davidson-Hansen, New York City. Co-designer with company design staff, Edwin Lieberman, New York.*



Alert YOUR Trade-mark NOW ... For Postwar Competition

Wartime population shifts have been enormous. Population shifts mean shopper shifts. Similar migrations of buying power will take place during postwar reconversion. Keep YOUR trade-mark *alive*—on displays and posters at the POINT OF PURCHASE; on booklets and folders at the POINT OF USE. Items developed and produced by Forbes will be correct ... and fruitful.

FORBES LITHOGRAPH CO.

THE SHOP BY THE SEA

P. O. BOX 513 • BOSTON 2

NEW YORK CHICAGO CLEVELAND ROCHESTER

SEAL EXPORT PACKAGES THE *Easy* WAY



Spray **WITH 3-M EXPORT PACKAGING ADHESIVES**

From small packages to large cartons . . . containers packed for export shipment are sealed quickly and effectively with 3-M Export Packaging Adhesive. Engineered to meet rigid specifications, 3-M Adhesives form an air-tight, water-tight seal when applied with brush or the time-saving spray method.

There are over 800 types of 3-M Adhesives available for adhering, sealing, coating, insulating and sound deadening. If you have an adhesive problem why not write . . . our 3-M Adhesive Engineers may be of help . . . there's no obligation.

MANUFACTURERS OF 3-M PRODUCTS

MINNESOTA MINING AND MANUFACTURING CO.

GENERAL OFFICES: SAINT PAUL 6, MINN.

ADHESIVE AND COATINGS DIVISION · DETROIT 2, MICHIGAN



MPA345

Minnesota Mining & Manufacturing Company
900 Fauquier Avenue, Saint Paul 6, Minnesota

☐ Send me a copy of your new booklet, "ARRIVED O. K."
☐ Have a 3-M Adhesive Engineer call.

Name_____

Address_____

City_____ Zone____ State_____

New asphalts . . .

(Continued from page 124) shipping crates may exceed 25%. When the top of the crate is exposed to the sun, the moisture leaves the boards very rapidly. This causes the individual boards to warp, crack, pull nails and come loose.

When green lumber drys, it shrinks, forming cracks. The crate-top coating must, therefore, be so compounded that it stretches and bridges across cracks, forming a continuous waterproof roof. Moreover, it must remain sufficiently pliable and plastic to flex as the shocks of handling rack the crate. This holds true over wide ranges of temperature from below 0 deg. F to over 140 deg. F.

Material "C" is produced by oxidizing products derived from the steam distillation of a specially selected crude petroleum and this is primarily responsible for giving the desired characteristics. In addition, an asbestos filler is used to add body and bridging ability.

The crate-top coating is applied to a thickness of $^1/_{16}$ in., and a gallon covers approximately 25 sq. ft.

Spraying is the most efficient method of application for large crates, but for small operations the coating can be readily applied manually by using a squeegee, rake or trowel.

Low-cost asphalt has come into its own in the packaging field and there appears to be a great future for this material in development of moisture-vapor barriers of low cost and high efficiency.

CREDITS: *Moisture barrier material, "Protek-Coat": sealing material, "Protek-Seal," and crate-top coating—all by Davison Chemical Corp., Baltimore, Md.*

Pass the ammunition

(Continued from page 105) containers in wax and to strap boxes with four different sizes of strapping. Only the heavy-gauge metal type containers cannot be made at the laboratory.

With this equipment, complete experiments may be run to discover weaknesses in containers. For example, if it is found that one type of wooden crate is weakened too greatly by the revolving drum, more nails can be used. If leaks develop in a box, metal liners can be inserted at once and the container can be tested again.

The Arsenal's packaging center serves as a guarantee that the G.I. Joes who use Ordnance firepower overseas will receive it in usable condition. If a container passes the rigid tests to which it is subjected at Picatinny, it is sure to reach the battle front with its valuable contents protected.

Labels on glass . . .

(Continued from page 85) and the identical colors as used on the packages are applied to the shipping cartons, even to the color distinction for the two grinds. Thus the designer has carried family recognition in this distinctive package design to unusual lengths and secured for his client additional merchandising advantage at little or no extra cost.

CREDITS: *All label designs, Walter Landor & Associates, San Francisco; label for fruits and vegetables, Schmidt Lithograph Co., San Francisco; labels for coffee jars and specialty items, Lehmann Printing & Lithographing Co., San Francisco; coffee cartons, Interstate Folding Box Co., Middletown, O.*



UNEQUAL COMPETITION...
May Be Disastrous

From the very day of its birth, any product.... and any package.... is in danger of becoming slowly or suddenly obsolete. Competition with a more modern product or package may be disastrous.

Do not let easy wartime selling give you a false sense of security. If your packaging has not been re-examined during the past year, let us do it for you and make the necessary recommendations.

Call On

OLD DOMINION BOX COMPANY

CHARLOTTE, NORTH CAROLINA

PLANTS IN TEN SOUTHERN CITIES

Folding Cartons • Set-Up Boxes • Convolute • Spiral Wound and Corrugated Containers

"THE SOUTHERN BOXMAKER WITH A NATIONAL REPUTATION

New York Representatives, BAKER PRESS 228 East 45th St., New York 17, N. Y., Murray Hill 2-6492



*Laminated foil wrap now protecting all manner of war material in transit.

ACME
BACKING CORP.
MEADOW & BOGART STS.
BROOKLYN 6, NEW YORK

Mfrs. of Approved Moisture Vapor Barrier, Officially Specified as VALLEY, for Method IA & II Packaging

Postwar displays . . .

(*Continued from page 107*) from the plaque, top and bottom; silk cord was used for hanging. The long life of this unit proved that dealer displays do not necessarily have to be large in order to be good.

Another photograph recalled that some seven years ago Squibb & Sons had distributed a dealer display made of wood, metal and stamped metal. In our survey, we saw the unit on display in many drug stores throughout the country. Institutional in character and fundamental in design, this unit was frequently used by the druggist on the top ledge of the partition separating the prescription department from the drug counter, lending a professional dignity to the department as well as filling the awkward space occasioned by this type of store architecture.

In conclusion, there is this final factor to be considered: During the war years, brand identity plays a minor role alongside product availability. The customer, relying upon dealers' stocks, is taking the dealers' say-so about them. These elements have served to eradicate from consumer memory brand names, advertising symbols and the other insignia by which national advertisers have kept their product identity before their public in retail outlets.

That dealers will be a determining factor in the future point-of-sale techniques, vitally influencing the consumer attitude toward an advertiser's product, seems a self-evident conclusion. Newspaper, magazine, radio advertising can all fulfill their mission if the advertiser's point-of-sale material wins full postwar dealer support. It should not be too difficult to achieve, if sound principles are followed.

Man appeal . . .

(*Continued from page 113*) his box to stand out when stocked with competitive brands. This was the problem posed by the manufacturers of the State-of-Maine lounging robes. The majority of robe packages are in maroon-colored boxes.

The designer, to secure the necessary contrast, employed a bold stripe design in a neutral gray color and overprinted the information. This package makes for a strong pattern arrangement when it is stocked on the shelves and also offers good display opportunities.

Dignity, to help sell both male and female customers, was the paramount feature underlying the package design for the Royden Meer-Tone pipe.

The pipe is a plastic type with a meer-tone inner bowl. The display was designed to show up the new type of bowl but it also had to maintain a definite dignity to create the impression of a quality pipe.

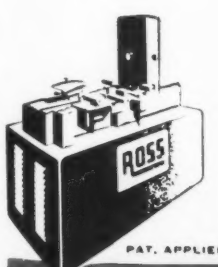
The designer, faced with war shortages, had to use a slit device to hold the pipes in position on the card. An individual box was designed for the pipes when they were removed from the card. A streamlined and dynamic design was substituted for the standard symmetrical idea used by most pipe companies. The results are an eye-appealing but dignified display.

The creations for the Hargold pipe and tobacco pouches and Briggs tobacco were eye-catchers, colorful and primarily appealers to the feminine trade. But these packages also had that touch of masculinity which goes with a pipe-smoker —rugged, simple and outdoorish.



- *Engineering*
- *Experience*
- *Production*

With ROSS all three are essential to give you the finer, more versatile packaging machinery. ROSS packaging machines are constructed entirely from Standardized high precision parts made to close tolerances. An experienced engineering and designing staff, skilled workmen, modern plant facilities, mean to you the finest in packaging machinery. Look to ROSS for assistance in your packaging problem. Write for complete information today.



A. H. ROSS & Co. LUDLOW · KENTUCKY

PACKAGING MACHINERY


RED CROSS
WAR FUND
GIVE

Typical

PACKOMATIC EQUIPMENT

Case Sealers & Imprinters; Volumetric Fillers, Net Weight Scales.
Carton Making and Sealing Machines, Dating (Coding Devices), Auger Packers.
Paper Can Tube Cutters, Tube Gluers, Shrinkers, Cappers. Set-up Conveyors, etc.
For Better Package Handling Tomorrow, Consult PACKOMATIC'S nearest office TODAY.

Representative

PACKOMATIC USERS

The Quaker Oats Company • Kellogg Company United States Tobacco Company • S. C. Johnson & Son, Inc. • Armour and Company • I. J. Grass Noodle Co. • Carnation Company • Hershey Chocolate Company • General Foods Corporation Owens-Illinois Glass Company • Ball Brothers Company • R. B. Davis Company • Westinghouse Electric & Mfg. Company • Horlick's Malted Milk Corporation • National Oats Company and hosts of other top-flight corporations.

Experience...

is that Vital Link Between a Packaging Project and its Successful Completion

Check the PACKOMATIC package-expediting equipment listed above... Note the calibre of business and industrial organizations for which this equipment has been designed and built. Consider the tremendous volume of merchandise that has been sped to Global destinations with the aid of PACKOMATIC packaging machinery—safely, surely, economically!

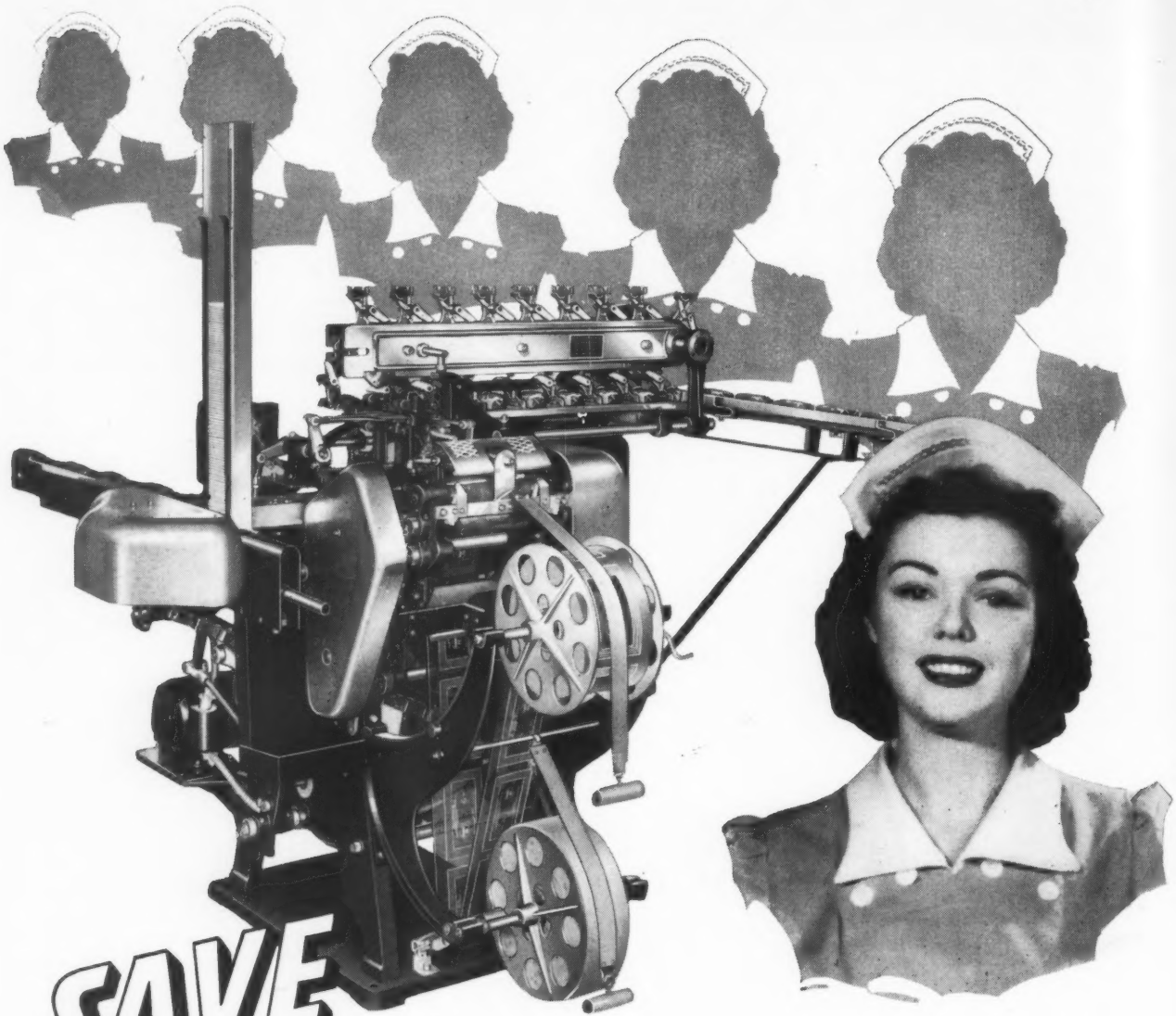
Is there a package-handling situation in your jurisdiction that may be improved?... Is there a piece of PACKOMATIC equipment that you feel may facilitate your packaging?... a NEW PACKOMATIC Case Sealing or Imprinting Machine, Volumetric Filler—or Disc Feed Automatic Net Scale, any one of which may lower your package handling costs?

A telephone call to Joliet—or a contact with the PACKOMATIC sales and service office nearest you can result in a conference for which you incur neither cost nor obligation to purchase.

NEW YORK • CHICAGO
BOSTON • CLEVELAND

PACKOMATIC
PACKAGING MACHINERY
J.L. FERGUSON CO. JOLIET, ILL.

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SAVE OVER 75% IN WRAPPING LABOR!

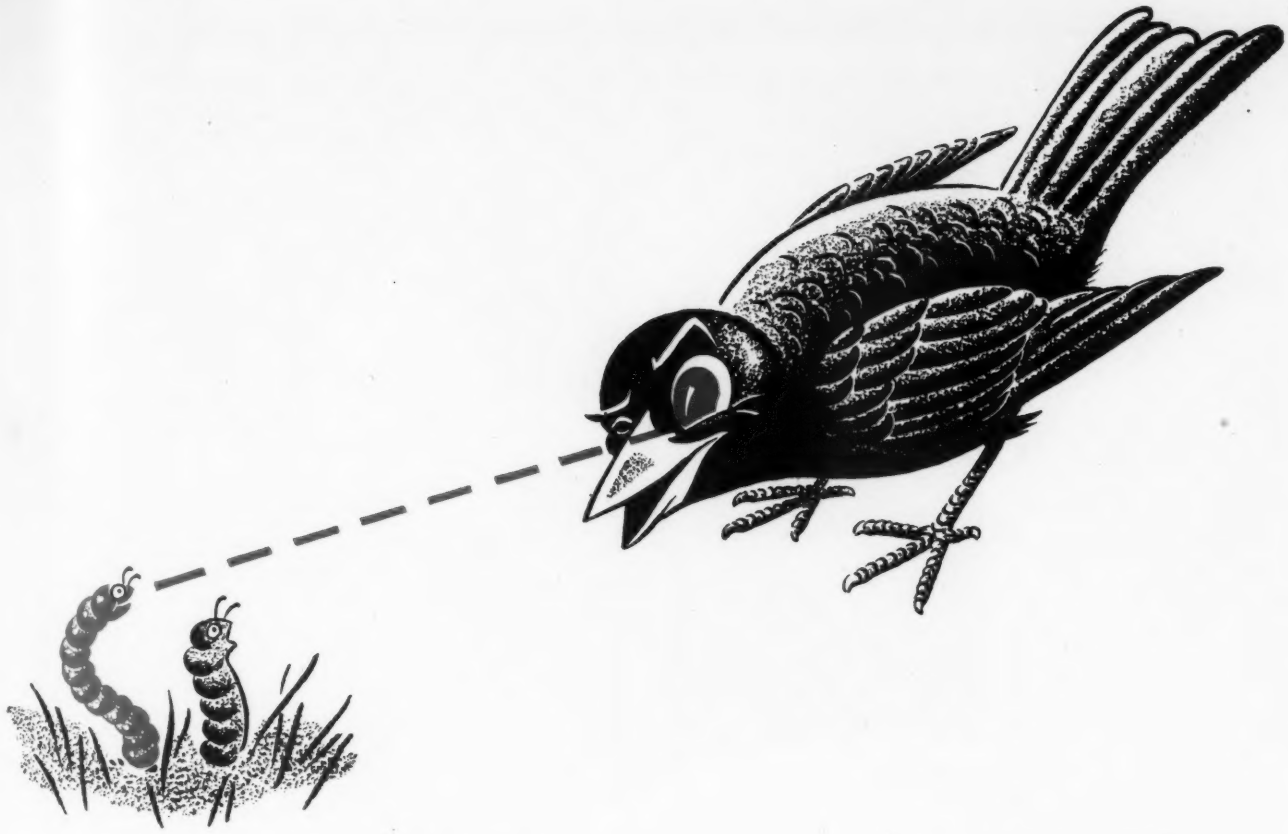
That's real packaging economy—for in many prominent candy manufacturing plants and bakeries, using Wrap-O-Matic, 5 out of every 6 girls on the packing line are now only shadows of the past . . . a savings of over 75% in Wrapping labor costs. Wrap-O-Matic also saves up to 35% in Wrapping material costs . . . operates at high speed (up to 120 units per minute) using any type wrapper that can be printed in rolls, and gives extra sales appeal to your product. Shape and texture are no obstacle, for Wrap-O-Matic wraps soft or irregular shaped bars and biscuits with ease.

Plan now to streamline your wrapping operations. Write for our new illustrated brochure and more complete details.

For wrapping candy bars, biscuits, and cookies, Wrap-O-Matic is the most popular Wrapping machine in the Confectionery and Bakery field . . . a real tribute to the flawless wrapping by Wrap-O-Matic.

WRAP-O-MATIC Lynch DIVISION

Manufacturing Corporation, Defiance, Ohio U. S. A.



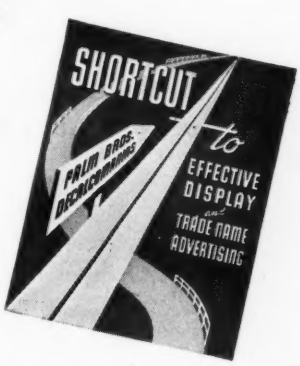
EYE APPEAL

The power of attraction — through eye appeal — means consumer attention and positive product identification.

Colorful Palm Brothers Decals command such attention — give you the product identification you desire.

Regardless of surface, Palm Brothers Decals are easily applied. Magnetic in color, economical in price, remarkable in durability, they are your marks of distinction . . . exclusively yours.

Palm Brothers Decals spell the difference between dynamic product identification and mediocrity.



Write today for your free copy of new Bulletin No. 919.

THE PALM BROTHERS *Decalcomania Co.*

CINCINNATI . . 12 . . . OHIO . . U.S.A.



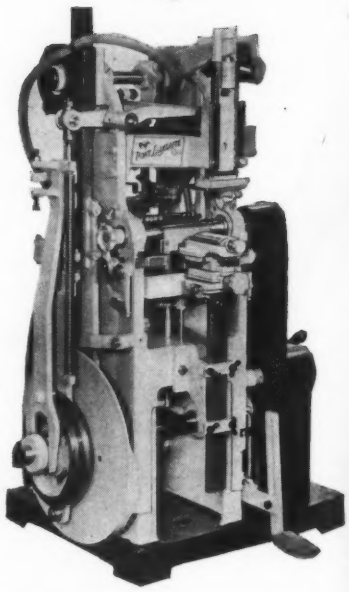
Their time is PRODUCTIVE now!

because LABELRITE Savings cut out UNPRODUCTIVE TIME . . .

War time is NO time for hand-labor. Seals, end-labels, top-labels, perfectly registered with minimum glue, means NO girls needed for extra help on label applying. Put them on *productive* work and enjoy LABELRITE savings for Years to come!

NO EXCESS ADHESIVE TO WIPE OFF
NO "RE-POSITIONING" OF LABELS
NO SHUT-DOWN FOR CLEANING MACHINES

Labelrites do THE FULL JOB, and automatically clean themselves.



Get FACTS and you'll get Labelrites!

NEW JERSEY MACHINE CORPORATION
16th St. and Willow Avenue . . . Hoboken, N. J.

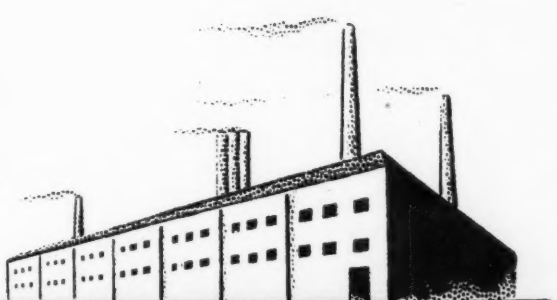
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Special Importance

#271-N — Especially formulated for strong anchorage to glassine.

#425—Low temperature heat-seal especially adapted to 2 and 3 ply laminations. Excellent adhesion to such difficult surfaces as waxed glassine, cellophanes, foils, etc.

Also—special adhesives for cloth to paper, foil to film, paper to paper, and other bonding.



FLOOD & CONKLIN MFG. CO.

Coatings of Scientific Reliability

NEWARK 5, NEW JERSEY

"I'll Sue!"
.
.
.
"Like Plucking Out My Right Eye"

Of *Modern Plastics'* 10,580 subscribers, nearly all answered a recent questionnaire to determine into what new fields of industry war production had directed them. The survey was presented on the basis that the information was needed in order to allocate available copies of *Modern Plastics* among those who had subscribed to it.

Of this large group, less than 100 reported that they could do without *Modern Plastics* for the duration of the war.

Sample reactions ranged anywhere from the man who wanted to sue us because he thought we were breaking our contract to fill his subscription, to the man who pleaded "Taking away *Modern Plastics* would be like plucking out my right eye."

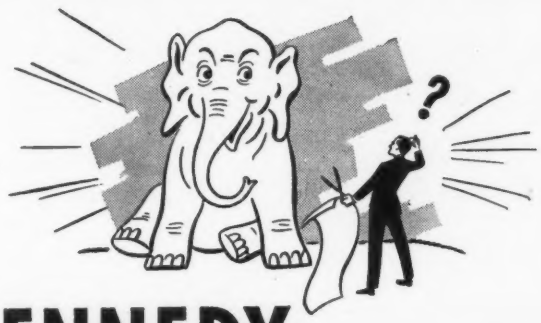
The lessons for advertisers are obvious. *Modern Plastics* subscription list is packed with men of fervent interest—100%. There is no padding and no waste. The individuals are all executives, the companies important. They pay a considerably higher price for *Modern Plastics* and they refuse to give it up. *Modern Plastics'* more than 400 consistent advertisers can tell you just how effective this reader interest is in terms of results.

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. . . the established institution in its field
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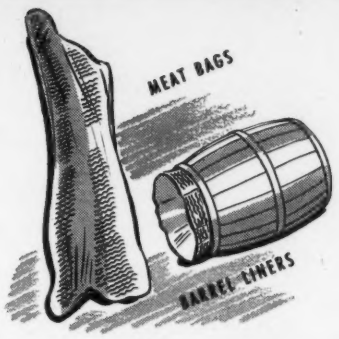
PUBLISHED BY MODERN PLASTICS, INC.
122 EAST 42nd STREET, NEW YORK 17, N. Y.
Chicago • Washington • Cleveland • Los Angeles

even if your product is different...

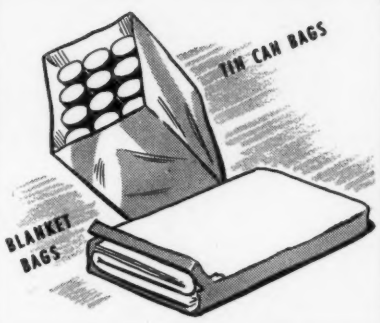


KENNEDY can solve your protective packaging problems

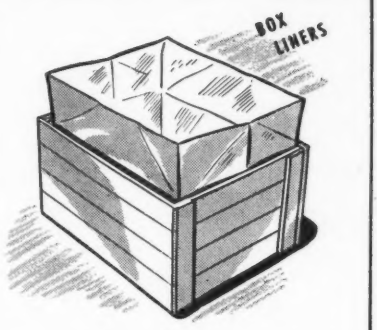
CRINKLED KRAFT PAPER



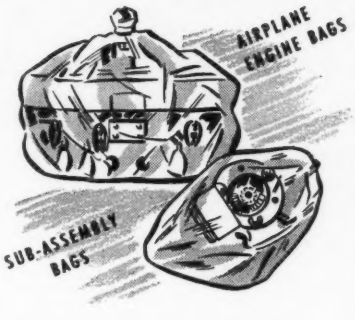
PLAIN KRAFT PAPER



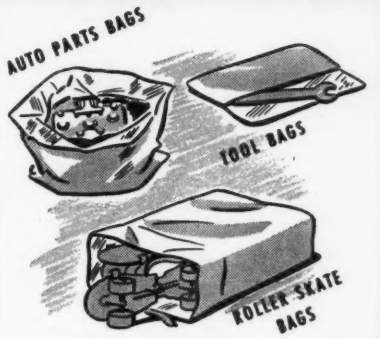
WATERPROOF KRAFT



TRANSPARENT PLASTICS



METAL FOIL LAMINATIONS



Protective packaging—for all manner of products susceptible to damage by natural elements—that's Kennedy's prime function in business. Whether your products are metal or wood—fabrics, foods, or drugs . . . large or small—heavy or light . . . whether they require protection against dust, dirt, oil, grease, water, or moisture . . . Kennedy has the materials, the equipment, the know-how, to fabricate packages to meet your requirements . . . exactly!

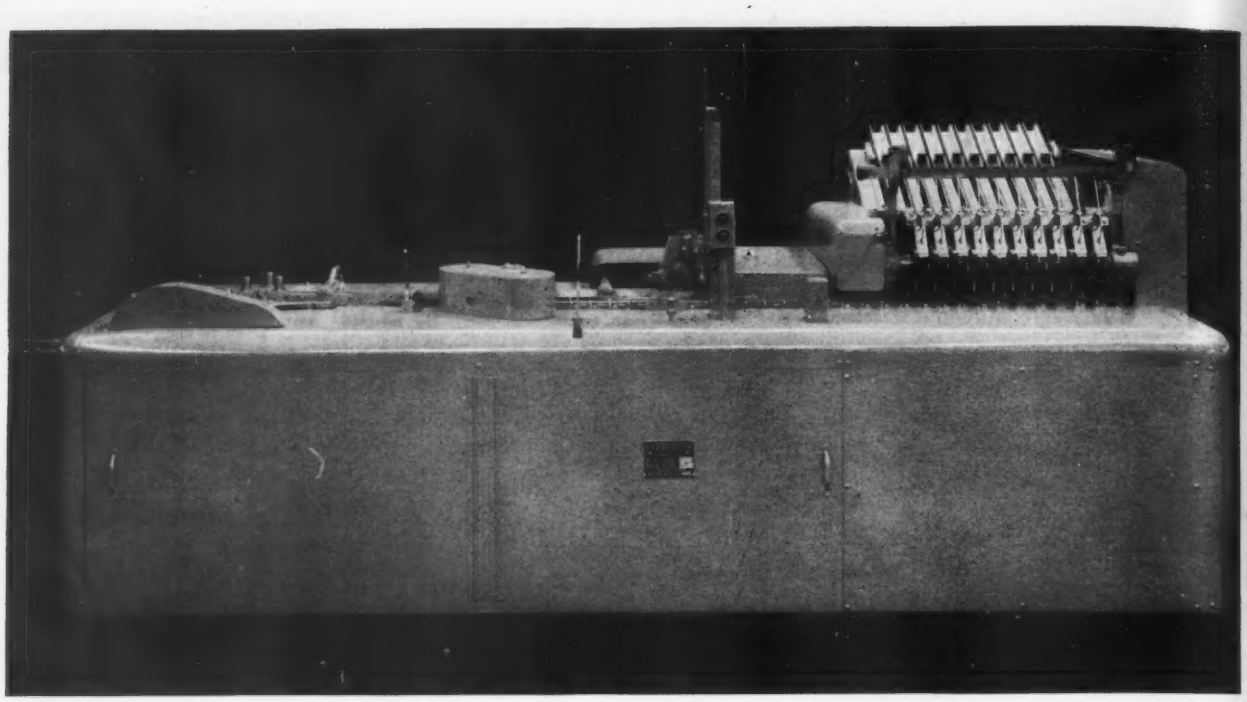
Though Kennedy's resources are now devoted to production of protective packaging for materiel of war, we suggest it's none too soon to start planning your peacetime packaging needs. Let us help you—no obligation.

Kennedy CAR LINER & BAG COMPANY, INC.

PACKAGING PIONEERS ★ SHELBYVILLE, INDIANA

Canadian Plant: Woodstock, Ontario • *Sales Offices:* New York, Chicago, Cleveland, Detroit, Kansas City, Los Angeles, Atlanta

FABRICATORS IN PLIOFILM • SARAN • KOROSEAL • METAL FOIL • CELLOPHANE • WATERPROOF PAPER • KRAFT PAPER



By far the majority of razor blades made in the world are counted and cartoned on the JONES CONSTANT MOTION CARTONER *because:*

ACCURATE COUNT INSURED—A broken blade, a blade without a wrapper or "no blade" is automatically detected and indicated. It is impossible for a "short count" carton to pass through the machine. The mechanisms handling the blades and cartons are as infallible as a sewing machine.

SPEED—100-200 cartons per minute.

LONG LIFE—All motions are so smooth, short and unhurried that wear has been reduced almost to the vanishing point. We can show you machines 14 years old running as efficiently as the day they were installed.

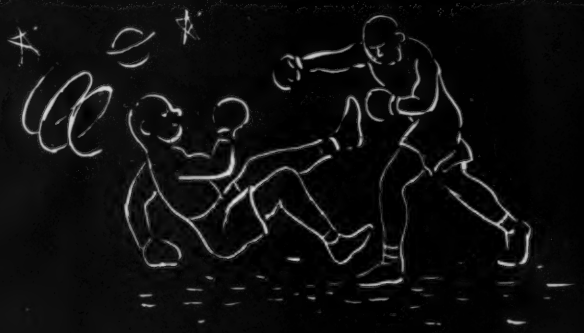


Your own packaging problem may not resemble the one outlined above. It may be simpler or it may be even more complex. Whatever the nature of your product, the JONES CONSTANT MOTION CARTONER will turn it out more rapidly, and with a better package, than any other cartoning machine.

R. A. JONES & COMPANY, INC.

P. O. BOX 485 CINCINNATI, OHIO

PLAN NOW FOR POST WAR COMPETITION



HEEKIN CANS

ANY SHAPE · ANY SIZE · ANY COLOR · ANY QUANTITY

THE HEEKIN CAN CO., CINCINNATI 2, OHIO

AN INDUSTRY DELIVERS

● Guns, ammunition and supplies are needed in tremendous quantities to win the war. They must be delivered in usable condition. Long hauls under the worst conceivable conditions demand containers of strength and durability far in excess of pre-war standards.

Millions of "V" boxes used by Government agencies in a single month, many made by Inland, have fulfilled these requirements, safely delivering vital war supplies. Often containers act as the only protection against the elements during open storage.

The fibre board industry in the development and production of the well-known "V" boxes has made a major contribution to the winning of the war. Inland, as one of the leaders, is proud to have taken an active part.

INLAND CONTAINER CORPORATION



INLAND

CORRUGATED FIBRE BOXES



INDIANAPOLIS, IND. • MIDDLETOWN OHIO • EVANSVILLE, IND. • MILWAUKEE, WIS. • DETROIT, MICH.

17,500* copies of 1945 PLASTICS CATALOG –ready this month ...the *one* and *only* Encyclopedia of Plastics

For value received, purchasers will plunk down $100,000.00 for the right to own and refer to 17,500* copies of the 1945 Plastics Catalog!

The per volume price is $6.00—same as last year's. And, when you consider that approximately 200 special articles are concentrated upon materials, methods and machines, you can rest assured that the guidance to be derived from this information is priceless.

Also, contained therein are eight exclusive charts . . . for which the "Encyclopedia of Plastics" is famed . . . they have to do with the characteristics of Plastics, Solvents, Plasticizers, Synthetic Rubbers, Adhesives, Coatings, Flow Sheets, Chemical Formulae. These studies are intensive, extensive and comprehensive . . . and can prove to be of invaluable assistance.

Finally, there is the Plastics Industry Directory Section . . . by no means a new venture to Plastics Catalog! This constantly reached-for unit has been part and parcel of each year's annual. Once again, therefor, every effort has been made to produce a compilation that is complete, correct and convenient.

When added together, these, briefly, are the values that will make the 1945 Plastics Catalog live on your desk for the next 365 days.

***Guaranteed Circulation**
ABC Audited

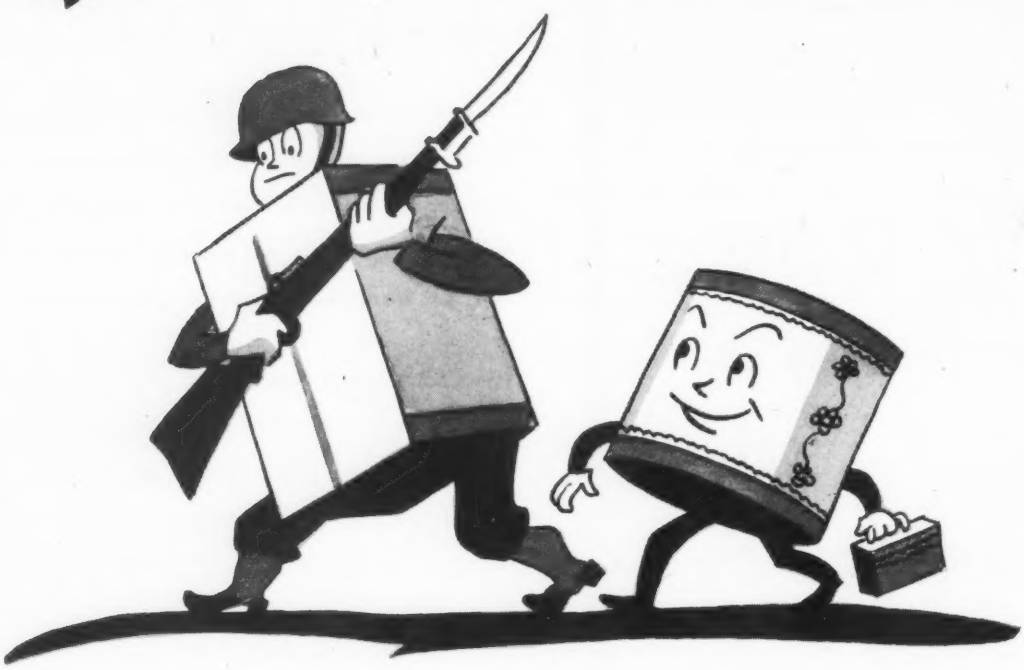
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THE READERS TEXTBOOK
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THE BUYERS MARKET BOOK

MEMBER AUDIT BUREAU OF CIRCULATIONS

PLASTICS CATALOGUE CORP.
122 EAST 42nd STREET, NEW YORK 17, N. Y.
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BODY GUARD FOR YOUR "AMBASSADORS OF GOOD WILL"



Your package is an important personage. It is your counter salesman and your Ambassador of Goodwill. It needs protection if it is to complete its mission successfully. That's the job of the Shipping Container. Hummel-Ross makes the materials from which those shipping containers are manufactured. The stamina and durability of those materials is amply proved by the job they have been doing for our armed forces. Thousands of items of war materials, from Blood Plasma to Bazookas, have been shipped safely in containers made from Hummel-Ross Products. Our wide and rich experience in protecting war-time shipments is yours for peace-time commerce.

HOPEWELL KRAFT

Originators • Creators

HUMMEL-ROSS FIBRE CORPORATION

Hopewell, Virginia, U. S. A.



Big Bottle: "He sure is, Tiny! It's hard for us bottles to loaf in stock rooms when he starts buying us up!"

Little Bottle: "You mean he buys us in ALL sizes, shapes, and quantities, with or without caps?"

Big Bottle: "That's right. ANY size or quantity. We're containers, you know, and we're darn useful!"

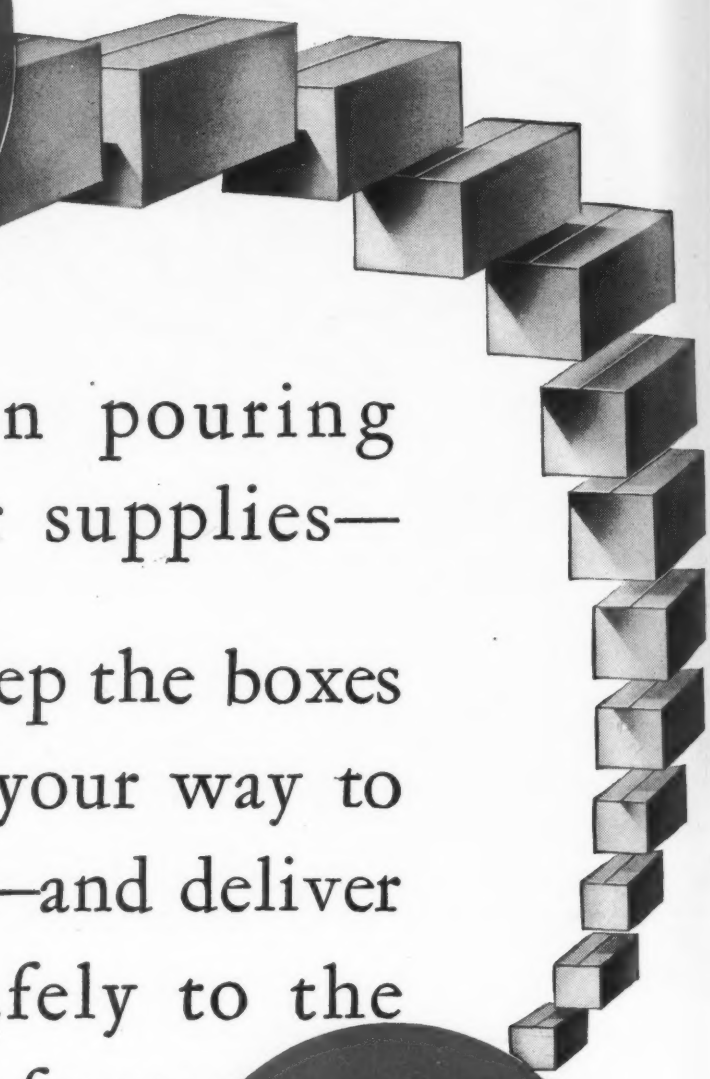
That's the story, folks! Why clutter up your valuable space? Get some good, hard cash for that useless accumulation of bottles, caps, and assorted containers, glass or otherwise.

Call us right now! Cash in on *your* pile of bottles today!

glass container & cap outlet co.

876 Broadway
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Gaylord Boxes



Keep on pouring out war supplies—

We'll keep the boxes coming your way to package—and deliver them safely to the fighting fronts.

and keep on buying more War Bonds!

GAYLORD CONTAINER CORPORATION • General Offices: SAINT LOUIS

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THE LION'S SHARE WILL BE CREDITED ON THE RECORD

There'll come a day...a series of days...when Manhattan's symbolic "Lion" will have the opportunity to inscribe its share in the Book of Victory! Tucked away in our files for after-V-day publication are accounts of outstanding war-use achievements for Manhattan's highly developed waterproofing glues...label adhesives...laminating bonds. Their performance story will bear telling, for they hold tremendous promise in the greater world of industry's tomorrow. Until then, and despite the fact that only a part of Manhattan's facilities are available to fulfill present civilian requirements, we, at Manhattan, would welcome the opportunity to be a party to your adhesive ideas and plans. Inquiries invited!

Adhesives, Dextrines, Liquid and Paste Glues, Flexible Glues, Gums, Starches, Casein, Waterproofing Glues, Sizing, Impregnating and Laminating Glues.

MANHATTAN PASTE & GLUE CO., INC.
Chicago · Philadelphia
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Columbus, O.
Lion Brand Adhesives
125 GREENPOINT AVENUE, BROOKLYN, N.Y.

For Over-the-Counter Appeal Distinguish Your Products *with* LUSTEROID



It isn't often you find sales appeal and protection in the same package. But that's just what you can count on in LUSTEROID vials and tubes.

These crystal-clear containers do two big jobs in one. They display your product with sparkling appeal. They protect it in transit from factory to consumer.

What's more . . . this light-weight plastic saves time, work and money. No protective partitioning or packing. Its printability eliminates affixing of labels. Its myriad colors . . . clear or opaque . . . provide eye and buy appeal. Its light-weight cuts shipping costs.

Sizes range from ¼" to 1¼" in diameter, lengths up to 6". Cork, slip-on and screw-cap closures.

Write for post-war details

LUSTEROID CONTAINER CO., INC.

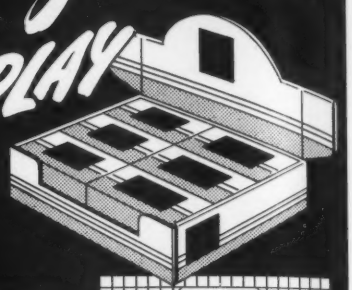
Formerly Lusteroid Division of Sillcocks-Miller Company

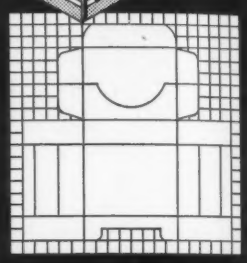
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DISPLAY CONTAINERS

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SKETCHES and SAMPLES SUBMITTED

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Telephone MUrray Hill 4-7520

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THE *Milgate* LINE

"Hot-Melt" Coated and/or Laminated Papers
Pulp Boards
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THE PACKAGING DIVISION

E. W. TWITCHELL, INC.

OFFICES: 760 Public Ledger Building, Philadelphia 6, Pennsylvania

MILLS: Hamburg (Sussex County), New Jersey

SELECT YOUR TAPES AND SPECIALTIES FROM OUR COMPLETE LINE:

A QUALITY PRODUCT
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NEVER LET GO
MADE TO STAY ON
ATLANTIC GUMMED PAPER CORP.—BROOKLYN, N.Y.

GUMMED SEALING TAPE, PLAIN & PRINTED
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CREASED GUMMED STAY
ASPHALT LAMINATED REINFORCED WATERPROOF WRAPPING PAPER

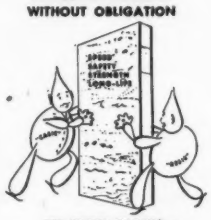
ATLANTIC GUMMED PAPER CORP.
MANUFACTURERS OF "On-to-Sta" GUMMED PAPERS
PLANT & MAIN OFFICE: ONE MAIN ST., BROOKLYN 1, N. Y.
BRANCH OFFICES: PHILADELPHIA · PITTSBURGH · CHICAGO · BUFFALO · ATLANTA · LOS ANGELES · HAVANA

APPROVED
Case Sealing
ADHESIVE

★ NATIONAL CASEIN'S Urea Formaldehyde Cold Setting Adhesive adheres to all types of V Board, and assures a permanent, waterproof seal that stands up under rain, hail, sleet—radical and sudden temperature changes—and rough handling.

Uniformly high in quality, readily available, backed by 30 years of service to Industry, NATIONAL CASEIN'S Urea Formaldehyde is *Laboratory Approved* as a water-resistant adhesive for sealing fibreboard boxes.

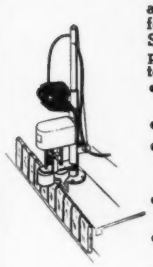
SUBMIT YOUR ADHESIVE PROBLEMS WITHOUT OBLIGATION



ALL TYPES CASEIN—HOT OR COLD RESIN GLUES

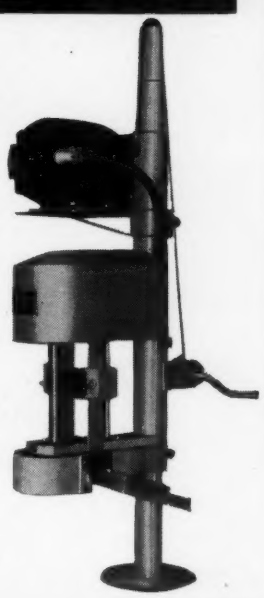
NATIONAL CASEIN SALES
608-618 West 80th Street • Chicago 20, Illinois

MANY EXCLUSIVE FEATURES
Doughboy ROTARY HOT KRIMP Sealer



The many exclusive, time and money saving features found in the Doughboy Sealer make it the most popular on the market today.

- Seals any size bag in width.
- Adjustable to any height.
- Controlled heat — any degree from 150 to 500° F.
- Uses no more power than ordinary toaster.
- Seals 240 lineal inches per minute.
- Instant removal of sealing rolls.



REGULAR MODEL, for cellophane and light materials.....**$199.50**

PRE-HEATER MODEL, for heavier or foil paper.....**$235.00**

Heat roll and preheater separately controlled.

Toggle-Jaw Type Sealers

8 inch Jaws	10 inch Jaws	12 inch Jaws
$98.50	$106	$113.50

FOR MORE DETAILED INFORMATION

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Div. of Techtmann Industries, Inc.
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Broadway 3355
Milwaukee 2, Wis.

Please send complete information on:
( ) Doughboy Rotary Hot Krimp Sealer
( ) Doughboy Toggle-Jaw Sealer
Attn. of.....
Firm.....
Address.....
City.....State.....

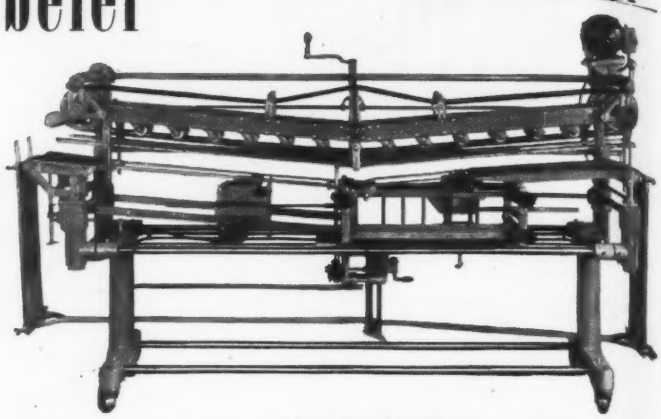


America's Versatile Labeler

By CRCO-NEW WAY

The one Labeling Machine that stands the test of years of satisfactory service—the CRCO-New Way Labelers which will handle any type of container that will roll. A wide range, from $1\frac{3}{4}$" to $6.\frac{11}{16}$" in diameter and from $1\frac{3}{4}$" to 9" in height . . . including also tall bleach bottles, gallon jugs, gallon cans with bale ears. Only a few minutes needed for changeover.

Investigate CRCO-New Way, the most trouble-free Labeler on the market today.



NEW WAY DIVISION CHISHOLM-RYDER CO., INC. **HANOVER, Penna.**

PRODUCTION JUMPS

WHEN A *Capem*

GOES ON THE BOTTLING LINE

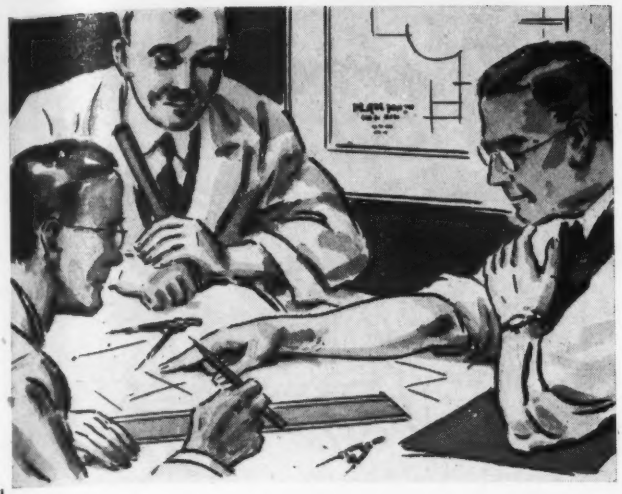


Packaging of foods, drugs, cosmetics—in fact anything sealed with a screw cap closure—shows sharp increases in production when a Consolidated capping machine goes on the line.

CAPEM is an automatic, high speed capper. It is available in 1, 3 and 4 spindle models and is easily fitted into any bottling line. Speeds range from 2000 to 7500 containers per hour. Write for information on this sure way to increase production with less help.

ARMY E NAVY

CONSOLIDATED PACKAGING MACHINERY CORP.
BUFFALO, N.Y.



In your designing use

Flock

to obtain the appearance and feel of SUEDE, VELVET, VELOUR



Boxes, novelty presentations, gift and display containers derive amazingly luxurious appearance through the use of Flock. Produced in many colors, and in cuts to produce the effect of velvet, suede leather, velour, etc., flock gives ordinary package materials high sales appeal at low cost. We will gladly refer you to sources of flock-coated materials for boxes, containers, book and menu covers, etc.

Request samples and prices

RAYON PROCESSING CO. of R.I. INC.

110 TREMONT ST., CENTRAL FALLS, RHODE ISLAND

Developers and Manufacturers of Printing and Coating Flock



"PACKAGED" in a Waterproof Paper Bag for PROTECTION

WATERPROOF LINERS AND BAGS

C. T. C.

INDUSTRIES, INC.

FRONT AND BECKETT STS., CAMDEN, N. J.

Angier
OF FRAMINGHAM



Airplane engine and parts manufacturers were up against it for a greaseproof wrapper to prevent corrosion. Angier of Framingham produced it in INDUWRAP, which has more than met any specification ever drawn for a Grade A, Type I wrapper.

If you have a *corrosion* problem, ask for samples of INDUWRAP and for descriptive folder, "The Touch of Death to Steel." You'll be especially interested in INDUWRAP'S exclusive infused *Inhibitor* metal-contacting surface. This kills corrosion before it starts by depositing a transfer film on the exposed metal spots, often caused by breaks in the protective oil film.

Other important features are that INDUWRAP is creped to S-T-R-E-T-C-H. It lets packaged metal breathe. It is soft and pliable, molding easily to hug odd-shaped articles snugly — without rupturing. Investigate INDUWRAP.

In writing for samples and literature, please mention **Modern Packaging.**

ANGIER CORPORATION
CORROSION PREVENTIVE AND WATERPROOF PAPERS
FRAMINGHAM, MASSACHUSETTS

THE ANSWER TO THE $64 QUESTION IS...



Red Streak SEALING TAPE

In "RED STREAK" Sealing Tapes you find a combination of good paper, good glue and plenty of it —that's the real answer to any sealing problem.

Ask your jobber for details, samples, prices.



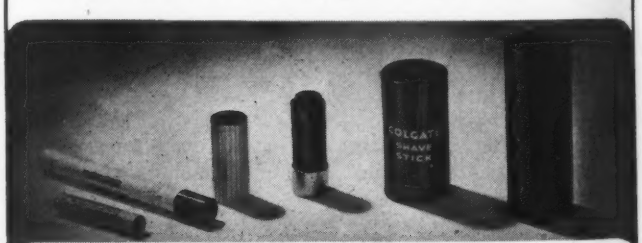
"Red SEALING Streak" TAPES

BROWN-BRIDGE MILLS, Inc., Troy, Ohio

MANUFACTURERS OF PAPER TUBE CONTAINERS

FUNCTIONAL PACKAGES for War and Post War

The engineering experiences of war have developed smart new packages for post-war times.



attractive • weight-saving

Our long experience in the fiber tube industry has given us the "Know-how" to interpret post-war containers. Consult us on your packaging problems.

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Adjustable
CARTON
SEALER

Seals BOTH ENDS Simultaneously

Here is a simple, flexible, portable, inexpensive carton sealing machine that every packaging department can use profitably.



Seals both ends of 30 to 120 cartons per minute, ranging in size from 2¼ to 12" deep. No frills or complicated gadgets. Operated, adjusted and maintained easily by unskilled help, without special tools.

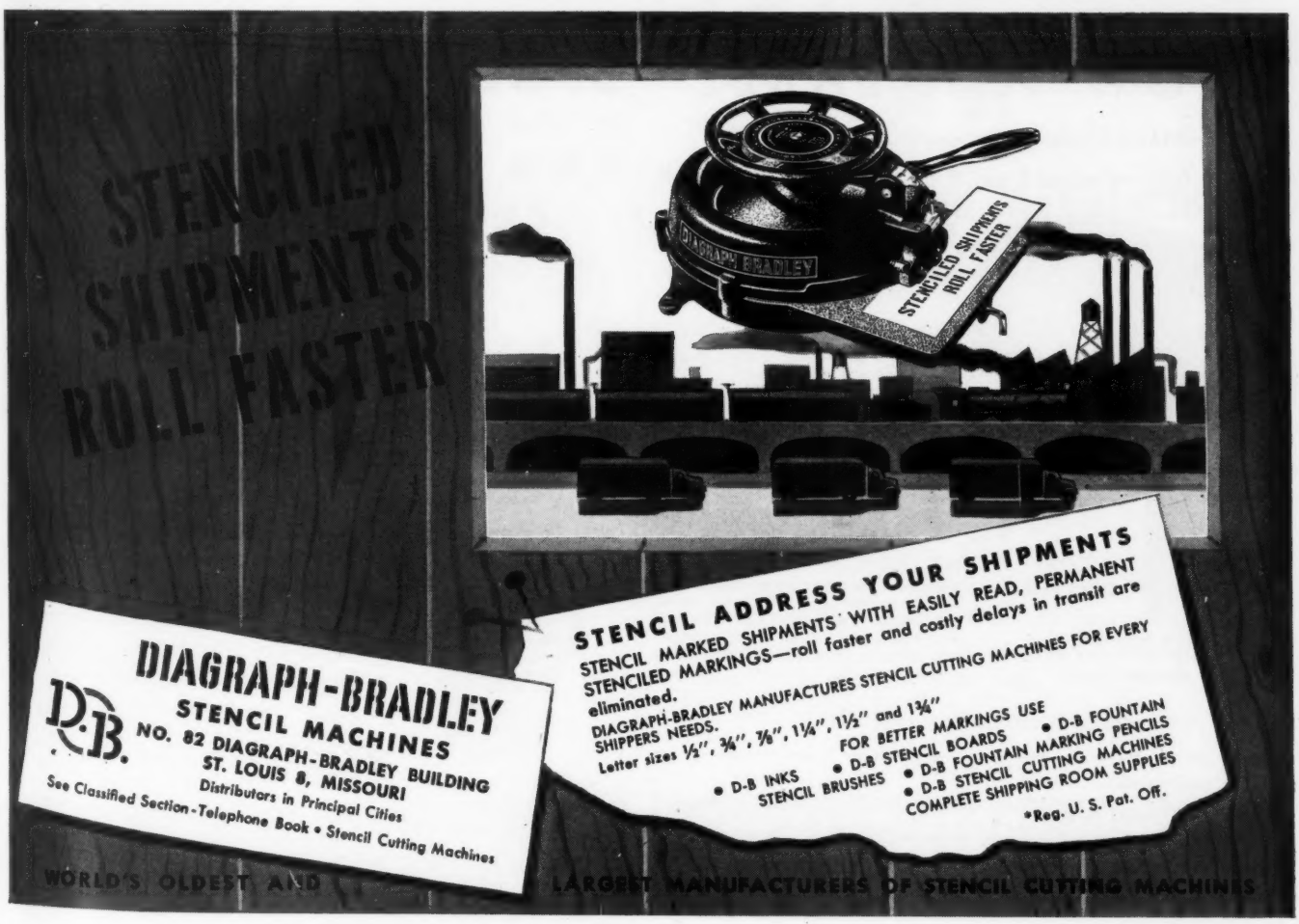
Get details of this labor saving, time saving, and money saving low cost machine today.

CECO

CARTON SEALER
MODEL A-3901-12

CONTAINER EQUIPMENT CORPORATION
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OFFICES
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PLASTIC FABRICATORS

of all types

These companies offer widest experience and facilities in fabricating rigid and flexible plastics

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Our war production includes — waterproof machine gun covers, nitrate handles for explosives, soldiers' eyeshields, fuse covers for shells, transparent envelopes, etc.

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Filma-Seal
CAP AND SEAL APPLIED AS ONE

Messy labels kill sales, then reputations. With oils or oily products especially — "Filma-Seal" closures keep air and rancidity out, keep the product in and protect the label.

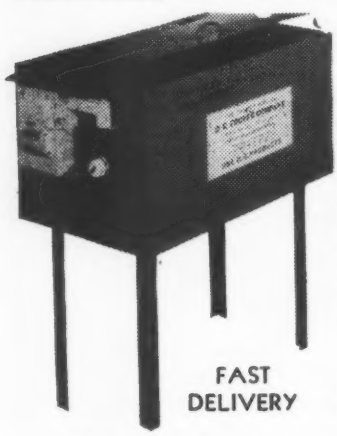
That's why you need "Filma-Seal" two-way closure protection—safe against ingress of air and leakage of the product itself. Investigate "Filma-Seal" at once.

The Double Seal of Protection.

FERDINAND Gutmann & COMPANY
SINCE 1898
*Reg. U. S. Pat. Off. and abroad
3601 14th AVENUE • BROOKLYN, N. Y.

NOW AVAILABLE

WAX—Meets Government Specifications AXS 1015
SILICA GEL—Packed 1 oz., 2 oz., 8 oz., 1 lb., 5 lb., bulk



FAST DELIVERY

Attractive distributors' set-up available in important cities. Write for details.

ETHYLCELLULOSE HEATING TANKS
Specially designed for heating Ethylcellulose compounds

← WAX HEATING TANKS
For export packaging, 5 gal., 15 gal., 30 gal., 60 gal. and larger

WIRE BASKETS IN ALL SIZES

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Prices upon request

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SEND COUPON FOR FREE COPY

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I want you to send me free bulletin giving information on cleaning, rust removing, etc.
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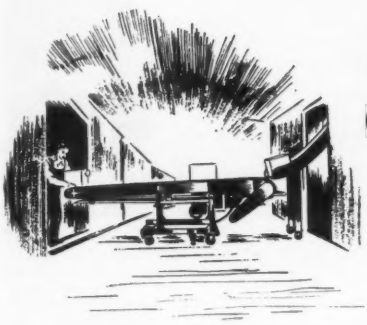
CONSOLIDATED FRUIT JAR COMPANY
NEW BRUNSWICK • NEW JERSEY

More Units per Hour... in *More* Tough Spots... with *Less* Labor...



LESS SPOILAGE
LESS DEMURRAGE

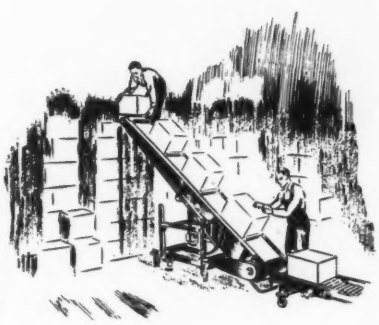
The LAMSON Utility Conveyor rolls right up to the freight car that *must* be unloaded. Two men can unload a vital car in a hurry with a LAMSON.



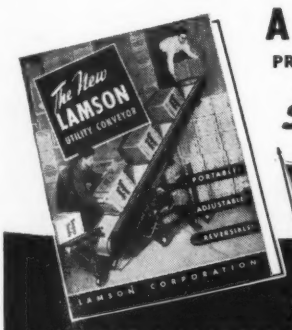
INCREASES EFFICIENCY OF CAR LOADINGS

Lamson Utility spans the dock from warehouse or factory to car. Cartons are delivered to the conveyor from a portable gravity chute. Two men do the job quickly and cheaply.

INCREASES FLOOR-SPACE



When the stock piles must go higher, or the floor-space be enlarged, the Utility Conveyor enables fewer men to pile higher—quicker—and safer.



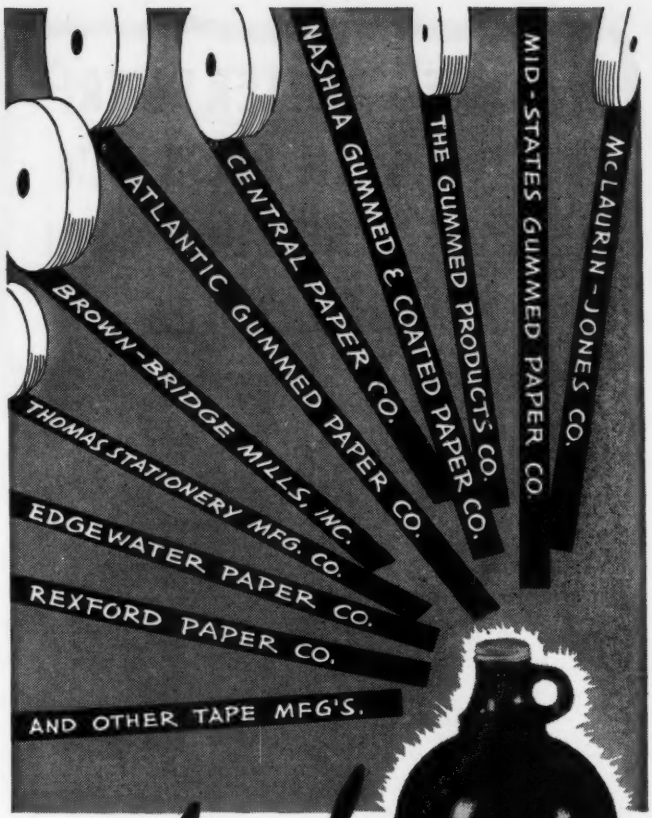
A FREE FOLDER

PROVES the worth of the utility conveyor in the food world

Send for it **TODAY**

ARMY (E) NAVY

LAMSON CORPORATION
200 LAMSON ST., SYRACUSE 1, N. Y.



Solseal Solvent "W 51"

Adopted by the Manufacturers of SOLSEAL Water-resistant Tape

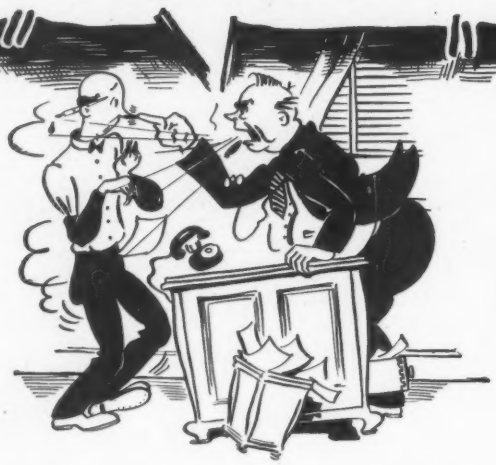
Because of its outstanding superiority as a wetting agent for tapes of the water-resistant type, Tanglefoot "W-51" solvent is now being sold by all of the producers of this tape under the trade name "SOLSEAL SOLVENT W-51". Hence, when you use SOLSEAL tape and SOLSEAL SOLVENT W-51, no matter of whom you buy it, you can be absolutely sure not only of meeting government specification AXS1213, but of quick, trouble-free application. It sets hard and firm quickly. It won't slip or slide. For complete protection use SOLSEAL water-resistant tape with SOLSEAL SOLVENT W-51.

A Product of

The TANGLEFOOT COMPANY

405 STRAIGHT ST. GRAND RAPIDS 4, MICH.

WE NEED BETTER DISTRIBUTION IN EASTERN U.S.- GET IN TOUCH WITH *HUBBS HOUSES*



If you are dissatisfied with your sales in America's No. 1 Market, — the rich territory from Indiana east .... if you can use the services of a hard-hitting, experienced sales organization .... if you want to sell the IMPORTANT industrial and retail accounts .... investigate how we can solve your problem.

We provide a complete merchandising service, including warehouse facilities. Contact the nearest HUBBS HOUSE.

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MERRITTON, ONT.

BE B SQUARE WAX

Anticipates Tomorrow's Packaging Problems!

Whatever problems peacetime packaging may bring, their importance will be greatly increased by the forces of competition—*for a product is only as good as its package!*

Be Square Special Waxes—microcrystalline in structure—are especially well adapted for the problems of peace as well as those already met and conquered during wartime.

High Melting Points, High Moisture Vapor Resistance, excellent Adhesive and Laminating properties qualify Be Square Waxes to help you solve your post-war packaging problems. In addition, they are Odorless, Tasteless and Chemically Inert. One grade is quite plastic and ductile over a wide range of temperatures, while another is hard and non-tacky. So, whatever your packaging problems of tomorrow, let Be Square Special Waxes help you *anticipate* their solutions *today*. Samples available in white, black and amber.



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LUSTRALITING • VARNISHING • LACQUERING • PARAFFINING
GUMMING • STRAIGHT CUTTING • EMBOSSING
PERFORATING

— Finishing — it's the Finish that counts!

PUNCHING

In packaging, the finish is important, too! Beautiful colors and designs need the extra sparkle of a good coating, the extra distinction of embossing or die-cutting.

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DIE CUTTING • EMBOSSING
STRAIGHT CUTTING • PERFORATING • PUNCHING

ENVELOPES FIBRE TUBES SET-UP BOXES CANS FOLDING CARTONS

We Handle



ALL THESE TYPES OF PACKAGES IN OUR CUSTOM PACKAGING DEPARTMENT

Yes, we package all types of dry powders, be they chemicals, cosmetics, household products, etc., in cartons, cans, set-up boxes, round paper packages or envelopes.

We do your mixing, filling, weighing, labeling, etc., on high speed automatic equipment.

Our service acts as the packaging department for other businesses.

WRITE OR PHONE

We can do all your work, or we can do part of it and do it the same way you would handle it in your own plant.

THE STEVENS-WILEY MFG. CO., INC.

Hancock, Palethorp & W. Berks Streets Philadelphia 22, Pa. Regent 1616–1617

"AUGER-VAC"

THE VACUUM-AUGER FILLING FOR POWDERED PRODUCTS

INSURES A CLEAN DUSTLESS FILL AND A TIGHT PACK

One of the later developments of Stokes and Smith Co. is the combination vacuum-auger method of filling such powders as cocoa, powdered milk, flour, dehydrated foods, etc., that require some packing to fill a container.

This new method combines the advantages of the auger feed for speed and accuracy and of the vacuum method for filling without dust.

The containers may be tin cans, glass jars or fibre but they must be air tight to hold a vacuum.

A motor driven vacuum pump creates the necessary vacuum. Correct timing to the vacuum-auger head is provided by a valve control mechanism.

The "Auger-Vac" Method may be used on the S & S Single Unit Filling Machines or the Duplex Automatic Machines. Speeds—15 to 100 per minute.

"AUGER-VAC" EQUIPMENT for "S & S" UNIVERSAL FILLING MACHINES. Fully covered by U. S. PAT. No. 2,330,862.



STOKES & SMITH Co

FRANKFORD, PHILA. 24.

FILLING • PACKAGING • WRAPPING MACHINES

SEND US SAMPLES OF YOUR CONTAINERS
WE WILL GIVE YOU COMPLETE INFORMATION

"BETTER MACHINES FOR BETTER PACKAGES"

NATCO SPECIAL *Protective* PAPERS

(Government Standard)

FOR SPECIAL PURPOSES

#3—Crate Lining—photo shows our special "Crate-Lining" paper which is water-proof and exceedingly strong as used to protect industrial blower and heating unit.

Our special sheets are
Laminated Papers
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FRONT AND BECKETT STS. CAMDEN, N.J.

DUPLEX · SATURATED · REINFORCED · WAXED & OILED PAPERS

BUY UNITED STATES WAR BONDS & STAMPS



WET or dry waxing machines, wax coaters and wax laminators. Sheet waxing equipment for fibre or corrugated box blanks—Aniline printers, sheeters, winders and interfolders. For quotations—

HUDSON-SHARP
MACHINE CO • GREEN BAY • WIS

DUNNFLEX

A concentrated "HOT-MELT" *for*

LAMINATING, COATING, FLOCKING, SEAM DOPEING

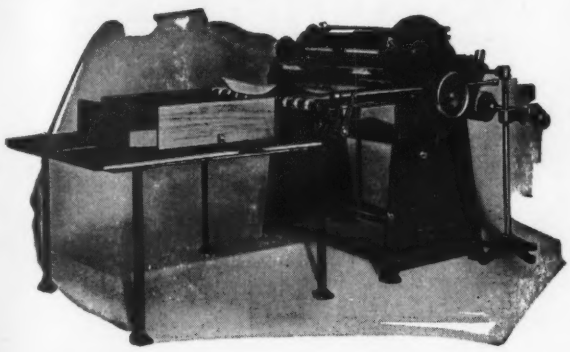
Liquifies at 130° F. May be thinned with hot water for control of spread, penetration and set. Is thermo-plastic—can be made thermo-setting.

Has inherent flexibility—complete resistance to animal, mineral and vegetable oils, greases, aromatic and aliphatic hydrocarbons, primary, secondary and tertiary alcohols.

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Sole Manufacturers
546 GREENWICH ST. NEW YORK CITY 13, N.Y.

Many Great Nations Are Already Planning Post War Programs

as are also many business men—ARE YOU?



THE BECK SHEETER

After "Unconditional Surrender" is a fact of history, you will want the highest productive Sheeting equipment obtainable, to meet competition. Your choice may be from the hi-speed Electric Eye machines for "spot sheeting" down to the more simple standard machines for plain work.

Write us to-day for to-morrow.

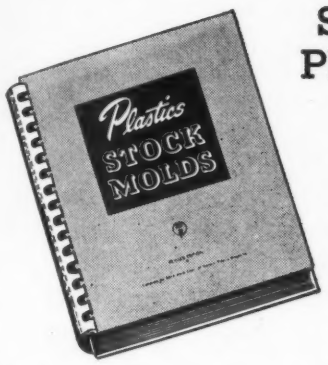
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13th & Callowhill Streets Philadelphia, Pa.

Plastics

STOCK MOLDS

SHORT CUT PRODUCTION



Important to every packager is the book of more than 1500 stock molds containing many packaging items such as, closures, boxes, lipstick packages, cosmetic containers, charms, applicators, etc.

Book also contains the only standardized index of stock extrusions including profiles, rods and tubes; also standardized index of laminated sheets, rods and tubes.

Completely illustrated with photographs and cross-sectional drawings; and indexed with manufacturers names and addresses.

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PACKAGING CATALOG CORPORATION

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Two Ways to Solve Your Product Marking Problem





Right now you're up to your ears in war production. But you probably are still *thinking* about a new product to be made when peace comes. You're also probably thinking about marketing that product . . . how to trademark it, package it or how to get your story across at the point of sale, among other things.

That's where Dennison comes in. Whatever your marking problem, remember there's more than a century of specialized experience at your beck and call here in Framingham. So when the time comes, put your problems up to

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PAPER SPECIALISTS FOR OVER A CENTURY



We'll be glad to help you plan today the special tags or labels that can be manufactured tomorrow. Present production at Dennison is given over to war work, but development work with the leaders of American industry still goes on. Evidences of past performances are given in an interesting booklet on product marking and identification. Get the coupon that will bring yours to you in the mail today.

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Please send me, without obligation, booklet "If You Could Only Be at Every Point of Sale."

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A land of breath-taking beauty is one of America's fastest growing trade centers!... It's true; the war has wrought an almost unbelievable change in Hawaii, and particularly in Honolulu. Manufacturers who once thought of our Pacific Paradise as but a tourist's delight can no longer ignore the present and post-war possibilities of this area! Retail sales in our community of a half million persons were a third of a billion dollars in 1943, increased 20% in 1944.... Nearly every product used in the mainland United States has a market in Hawaii, U.S.A. Give your line a bright future in the Pacific by contacting R. A. Howe & Co.... We are a long-established firm representing many leading products. Our personnel, warehousing facilities and showrooms are adequate. Let us tell you more about Hawaii and plans for distribution in the Central Pacific, China, the Philippines and East Indies.

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100 YEARS 1845–1945 IN BUSINESS!

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Quality Folding Paper Boxes

WITH the dawn of the New Year, we entered the century of the founding of our business by Samuel Curtis, great-grandfather of the present members of the firm. Through four wars and six major depressions we have continued to function since, on the original site of the first factory, always with descendants of the founder actively engaged. This is a test of STABILITY and efficiency seldom equalled in the annals of business, our credential of understanding service, and ability to produce Boxes of Standard Quality.

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THE ORIGINAL BAG HEAT SEALING MACHINE

MORE ECONOMICAL BECAUSE: it requires no pins, staples or other supplies It gives a permanent, positive seal merely by application of pressure and heat. Uses only 150 watts of electricity

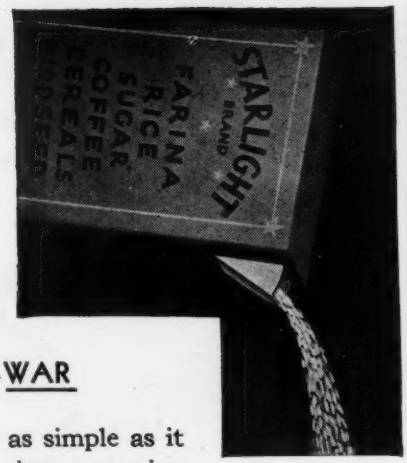
MORE EFFICIENT BECAUSE: *Kick-Leg* foot lever exerts 10 times as much pressure at jaws as applied by foot Top jaw is floated on springs that prevent undue wear on jaws and enable the operator to apply proper pressure with a minimum of effort. Positive thermostatic control assures correct temperature Send your bag for us to seal

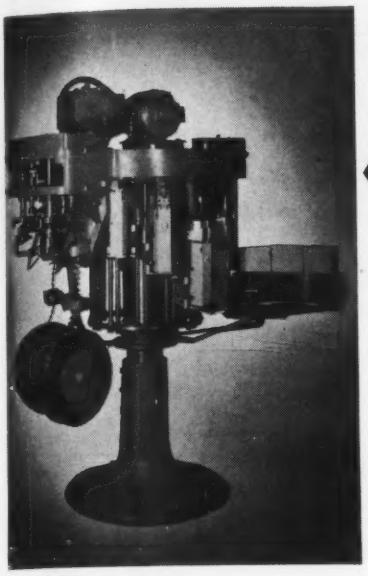
IN STOCK FOR IMMEDIATE SHIPMENT

WRITE FOR CATALOG SHOWING FULL LINE INCLUDING MOTOR-DRIVEN MODELS

HEAT SEAL-IT COMPANY
4316 LANCASTER AVE., PHILADELPHIA 4, PENNA.

"Seal - Spout" ⟶





for farina, rice, sugar, coffee, salt, baby food, ground meals, bird seed, soap-flakes, cleansing powders, etc.

and the MACHINE that inserts it.

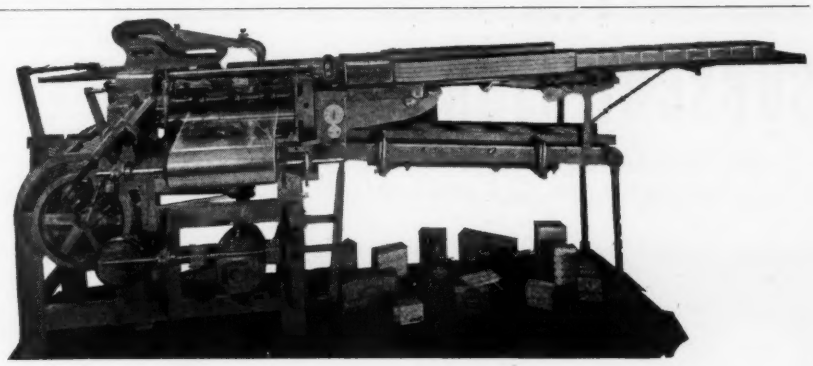
INVESTIGATE NOW FOR POST-WAR

The famous "Seal-Spout" pouring device is as simple as it is effective. This small wedge-shaped aluminum pouring spout turns a simple carton into a handy dispenser and, at the same time, turns lagging sales to swift, upward trends.

Do your post-war planning now. For best sales appeal improve your package with a sealed pouring device. See Seal-Spout. Send us one of your packages and we'll return it "Seal-Spouted".

"SEAL-SPOUT" CORP. CORPORATION

361-367-JELLIFF AVE.
NEWARK 8-N. J.



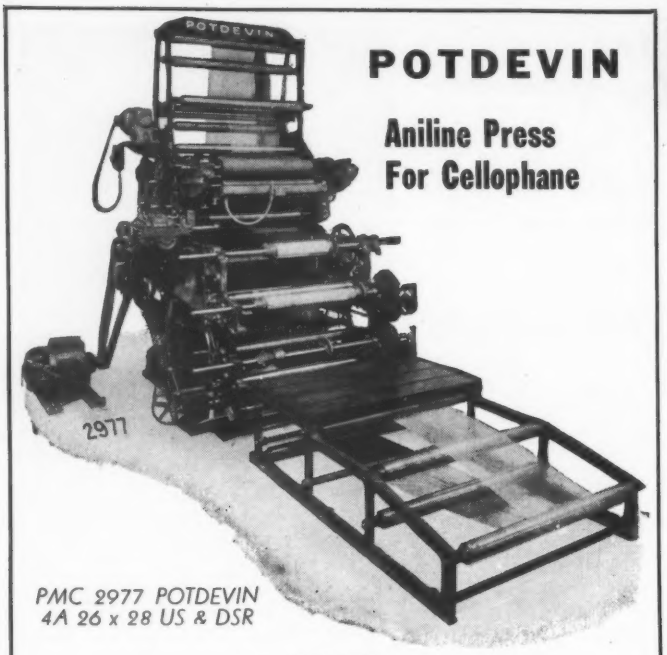
REPLACE . . . YOUR WORN-OUT EQUIPMENT

Now is the time to check over your wrapping equipment to determine whether it should be replaced with new machines. In the post-war period, to merely wrap and seal will not be enough . . . your packages must also look attractive. That means closer attention to minute details which improve package appearance. A post card or letter will bring the information you desire.

HAYSSEN MFG. COMPANY, SHEBOYGEN, WIS.

BUY MORE BONDS AND KEEP THEM

HAYSSEN ELECTRONIC CONTROLLED WRAPPING MACHINES



POTDEVIN

Aniline Press For Cellophane

PMC 2977 POTDEVIN
4A 26 x 28 US & DSR

(Model 304)

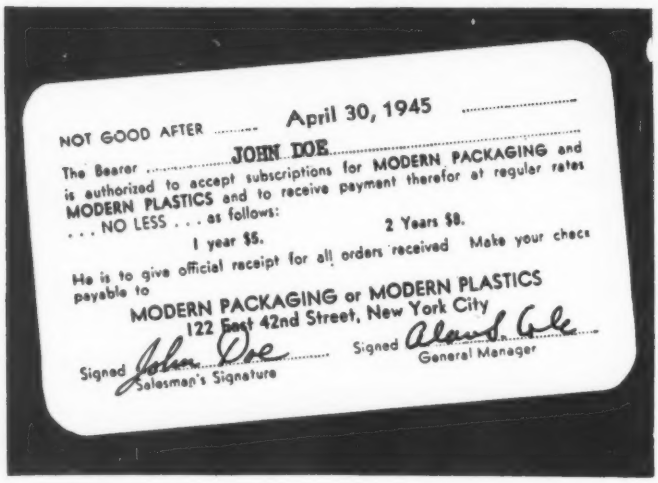
4-Color Multi-length pigmented Aniline Ink Web Printing Press with Unwind, Slitters and Dual Shaft Rewind. Especially suitable for cellophane.

Note: Continuous drive for ink fountain rollers;—long, variable drying runs between first and second colors, also after last color before rewinding.

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Established 1893 **Tel. Windsor 7-1700**

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Pay your subscription agent only if he has our *Authorization Card* dated *April 30, 1945*.



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All classified advertisements payable in advance of publication: Rates: $5.00 up to sixty words; enclosed in border, $10.00 per inch. Publisher reserves the right to accept, reject or censor a classified copy.

5000 gr. 3 oz. amber blakes
400 gr. 8 oz. amber blakes
300 gr. ¾ oz. opal jar, bakelite caps 51
200 gr. ¼ oz. opal jar, bakelite caps

Large quantity of bakelite caps from 8 mm to 53 mm inclusive.

Glass Container & Cap Outlet Company
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FACTORY-PRODUCTION MANAGER SPECIALTY BAG DEPARTMENT. Must be thoroughly experienced in printing, pasting and manufacturing waxed, glassine, etc., and other specialty type papers for potato chip bags, frozen foods, bakery product bags, etc. Mechanical training an asset. Excellent salary and postwar opportunities with well established successful company. Give full particulars. All replies confidential. Box 286, Modern Packaging.

SUPERINTENDENT WANTED for well established Midwestern Folding Box Plant. Experienced in Production with thorough knowledge of equipment. Give full particulars regarding your qualifications and salary expected in first letter. Box 291, Modern Packaging.

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WANTED—Taber Edger for acetate sheets. State model and price in first letter. Cooks'—Inc., Camden, N. J.

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Available Now—Retainer or Salary—part or full time—Bright Future Opportunity.

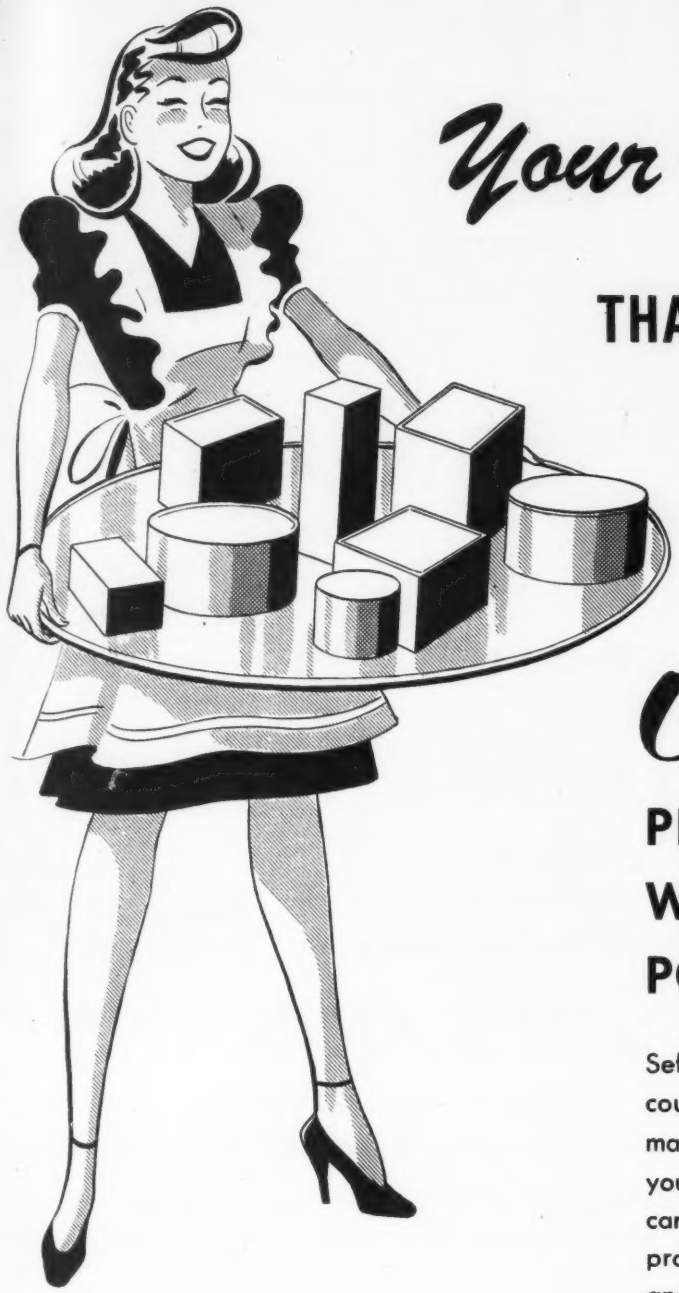
Box 294, Modern Packaging

BOX MAKERS' ATTENTION: 4 Morrison 32M—30″ Straight Arm and 1 Morrison 32M—36″ 45° Angle Head Side Seamer and 1 RSC 45° Head 32″ Arm Bliss Stitchers. Harry W. Brintnall Company, Inc., 430 Howard Street, San Francisco 5.

WANTED: Package Machinery Company CA-2 machines. Write full particulars as to age, condition, serial number, etc. Address Box 296, Modern Packaging.

PACKAGING RESEARCH CONSULTANT—Will consider special assignments. Write in detail objective desired of package and submit available sample or drawing of product. No obligation for estimate fee. Numerous contacts with sources of supply in all branches of packaging when required. Box 295, Modern Packaging.

As its contribution to orderly re-employment, MODERN PACKAGING will print free of charge in its "Positions Wanted" classification, one ad, not to exceed 20 words, for each honorably discharged veteran of the armed forces of the United Nations who has had previous packaging experience.



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THAT "TALKS" FOR YOU!

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Sefton's Profit Packaging speaks louder than countless words. Acting as your "silent salesman," it will sell your post-war product right off your dealer's shelves. The "pull-string" opening can assures your customers of factory-sealed products, in a can that can be opened easily, and closed again. Include it in your plans!

SEFTON

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Borden's ICE CREAM
IF IT'S BORDEN'S IT'S GOT TO BE GOOD

FOR TRADE MARKS

AUTHORIZED DEALER
UNIVERSAL
REFRIGERATOR

FOR WINDOWS

Planters

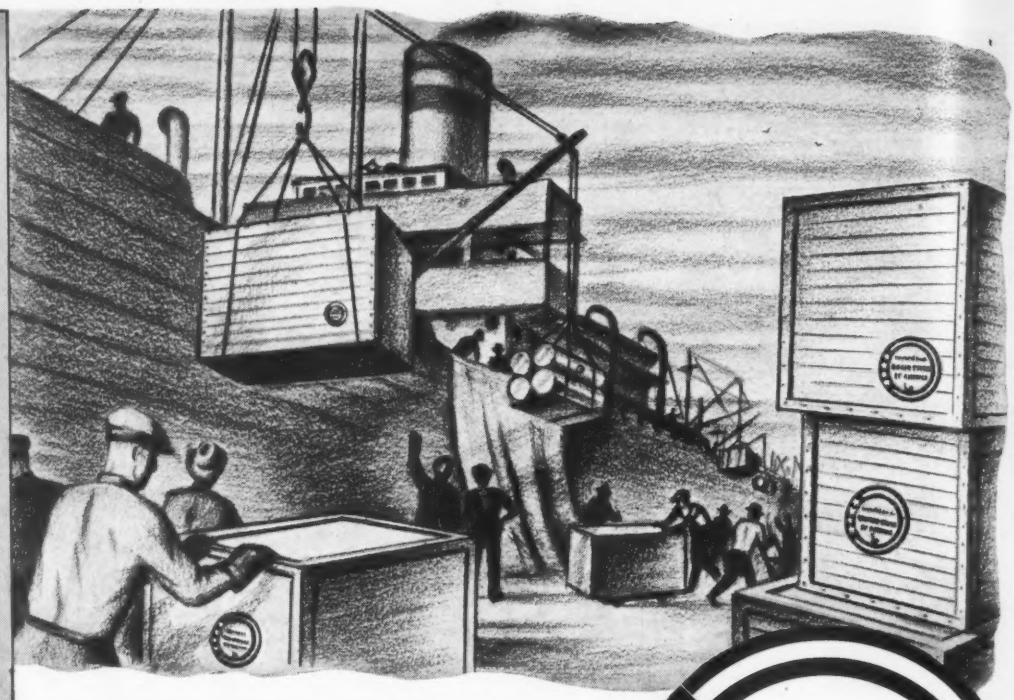
FOR TRUCKS

ENJOY
PEPSI-COLA
5¢
HITS THE SPOT

FOR BOTTLERS

AIR EXPRESS
DIVISION
RAILWAY EXPRESS AGENCY, INC.

FOR EVERY USE



YOUR GOVERNMENT
REQUESTS YOU TO
USE THIS EMBLEM!

. . . on each product
. . . on each container
. . . on each shipping case

imported from the
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OF AMERICA

Tell the world *"IT'S AMERICAN!"*

Exporters are urged to co-operate in this nation wide effort – as a means toward greater war time and post-war good will and business promotion.

Available in any language, these OWI seals may be adapted to any size – and include a manufacturer's trade mark or be incorporated into his regular label.

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Whether the requirement is for a label, for a small perfume bottle, or a sign for the side of a 20-ton truck, our trained creative staff is equal to the occasion – even in these war years.

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Chicago 5, Illinois

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New York 18, N. Y.

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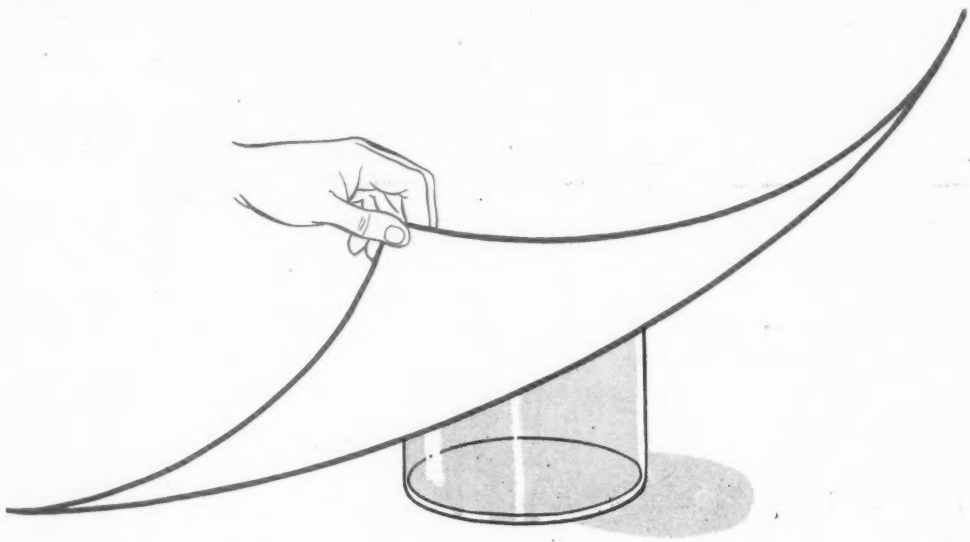
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MODERN PACKAGING
BRESKIN PUBLISHING COMPANY
122 East 42nd St. New York 17, N. Y.

VUEPAK



How to Introduce a Postwar Product

When the great day comes that you can finally unveil your postwar products, why not make it a *complete* unveiling?

Why not *reveal* the natural colors and charm of your products at the same time you *protect* their quality?

Why not display those products in packages of clear, rigid Vuepak?

You'll find, as hundreds of prewar packagers found, that sending a product to market in Vuepak is one sure way to give it a head start over competition. You'll also find that postwar Vuepak will be an even tougher material than the sleek, sturdy sheeting that helped set new sales records for an amazing variety of products before the war.

Right now Vuepak is used exclusively for war jobs, but you can plan on its being available, with no wait for reconversion, the day it is released from war service. You can also plan on finding skilful Vuepak fabricators prepared to fill your needs again in any section of the country.

Whatever your postwar products will be . . . *whatever* your postwar packaging problems . . . the chances are excellent that you will find a Monsanto plastic that can add to your products' sales appeal . . . give them added protection . . . or give you lower packaging costs!

The broad Family of Monsanto Plastics is one of the largest, most versatile groups of plastics offered by any one manufacturer. In addition to Vuepak sheets, rolls, and decorative sheets, it includes five different, basic types of molding compounds . . . heat-sealing vinyl coating compounds and films . . . two different basic types of thermo-setting resins used as adhesives and as impregnants for paper . . . and a new group of Thalid laminating resins for impression molding, one of the war's outstanding plastics developments.

For the advice of a Monsanto specialist in packaging plastics and news of the latest developments, write: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield 2, Mass.

MONSANTO PLASTICS

SERVING INDUSTRY...WHICH SERVES MANKIND

VUEPAK TRANSPARENT PACKAGING MATERIAL

The broad and versatile Family of Monsanto Plastics includes: Lustron polystyrenes • Cerex heat resistant thermoplastics Vinyl acetals • Nitron cellulose nitrates • Fibestos cellulose acetates • Resinox phenolics • Thalid for impression molding Resimene melamines. Forms in which they are supplied include: Sheets • Rods • Tubes • Molding Compounds • Industrial Resins • Coating Compounds • Vuepak rigid, transparent packaging materials.

REVEAL THOSE HIDDEN CHARMS!

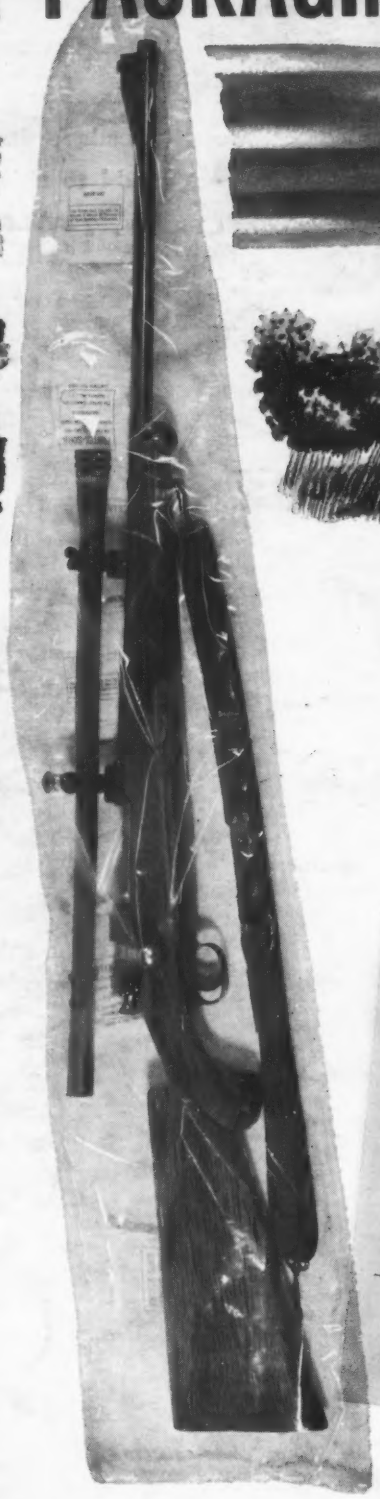
"Protective concealment" is a necessity for war theaters but *not* for the retail market! There your product's goodness must meet the consumer's eye. In BALL Glass Containers its color, texture, quantity and quality are plainly visible. These selling points, hidden from view in other types of containers, are *glamorized in glass.* The spic and span transparency of BALL Glass Containers provides just the dressing-up your product needs for its appearance before the buying public. Add to this the miraculous improvement in today's BALL Glass Containers—lighter, stronger, more economical than the glass containers of only a few years ago—and you have PACKAGING PAR EXCELLENCE.



B A L L
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General Offices
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HOW DOES WAR PACKAGING AFFECT YOU?







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This gun, for instance, is heat sealed in a tough, pliable, transparent material. A desiccant which eliminates any moisture in the air is contained within the moisture barrier . . . or bag. This is known as dehydrated packaging or Method II. By its use mechanical equipment can safely be shipped to every part of the world and stored for long periods in any climate.

When guns are again used only for sport, these materials will be available to protect *your* product. Shellmar engineers and technicians . . . the men who pioneered in the development of this method . . . are ready now to help you plan to use it.





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PRODUCTS COMPANY

ARMY (E) NAVY
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